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In case it should appear otherwise from this critique, no personal animosity is intended or felt. Richard Dawkins is an excellent communicator and I like his relaxed and clear lecturing style. However, I have criticised the quality of many of his arguments on four main counts:

His views of God as a created being, miracles as nothing other than 'more-or-less improbable natural events' and faith as unevidenced belief represent a 'straw' version of Christianity which the orthodox would not wish to defend. Consequently, arguments based on these assumptions do not actually engage with the intended target.

Attacks based on meme theory, religion as a 'mental virus' and the supposed gullibility of the young have no anti-Christian mileage in them whatsoever. These are simply theories about how ideas spread - any ideas. They say nothing about the truth or falsity of the beliefs themselves and have the boomerang effect of being equally applicable to the spread of atheism!

There appear to be a number of inconsistencies between Dawkins' various claims. These concern arguments from analogy; the use of chance +

selection by intelligent agents; the legitimate use of metaphor; wishful thinking; and the meaning and purpose of life. It is important to distinguish between confident assertions and their justification.

Much of Dawkins' world-view depends on his odd claim that 'religion is a scientific theory'. I know of no professional philosopher who makes such a assertion. An attempt to justify such a contentious claim is long overdue if Dawkins' position is to be taken seriously.

Dawkins accounts for the persistence of religion by invoking the ideas of 'memes', 'mental viruses' and the 'gullibility of the young'. But many of his arguments boomerang. They are potentially just as lethal to the user as to the intended victim. I shall indicate such instances by the symbol ?.

Mememes

Dawkins introduces his interesting concept of a 'meme':

I think that a new kind of replicator has recently emerged on this very planet. We need a name for the new replicator... meme...

Examples of memes are tunes, ideas, catch-phrases, clothes fashions, ways of making pots or of building arches. Just as genes propagate themselves in the gene pool by leaping from body to body via sperm or eggs, so memes propagate themselves in the meme pool by leaping from brain to brain...[SG, p192]

Most of Dawkins' developed examples of memes on pp 192-9 SG are ones which are used to convey highly negative images of religion:

The survival value of the god meme in the meme pool results from its great psychological appeal. It provides a superficially plausible answer to deep and troubling questions about existence. It suggests that injustices in this world may be rectified in the next. The 'everlasting arms' hold out a cushion against our own inadequacies which, like a doctor's placebo, is none the less effective for being imaginary. [SG, p193]

We have even used words like 'selfish' and 'ruthless' of genes, knowing full well it is only a figure of speech. Can we, in exactly the same spirit, look for selfish or ruthless memes?... To take a particular example, an aspect of doctrine that has been very effective in enforcing religious observance is the threat of hell fire...[SG, p196f]

[faith] means blind trust, in the absence of evidence, even in the teeth of evidence... The meme for blind faith secures its own perpetuation by the simple unconscious expedient of discouraging rational enquiry. [SG, p198]

The simile of a doctor's placebo suits Dawkins' purpose, but it is employed without any attempt at justification, illustrating how language can be used to bewitch as well as clarify.

It could equally well be asserted that the 'everlasting arms' are none the less real for being effective.

According to 'meme-theory', disbelief in God, disbelief in hell, and unbelief are also memes which could perhaps be accounted for as desires to live precisely as one chooses and to escape any responsibility of a non-temporal kind!

Mental viruses

Dawkins' allied comparison of belief in God to a computer virus again suits his world-view because 'virus' conveys an unfavourable image.

Disbelief in God can equally well be compared to a computer virus.

Are young people gullible?

In his 1991 Royal Institution Christmas Lectures Dawkins assured his youthful audience that:

Growing up in the universe... also means growing out of parochial and supernatural views of the universe... not copping out with superstitious ideas [CL 1]

The use of an educational series on science as a vehicle for promoting the view that science forced one into atheism was improper and is a view with which many scientists disagree. No indication was given that an opposite view could rationally be held - which amounts to propaganda. Blame for children retaining 'superstitious' ideas about God was laid upon schools and parents:

Most people, I believe, think that you need a god to explain the existence of the world, and especially the existence of life. They are wrong, but our education system is such that many people don't know it. [SCAG]

Children of a certain age believe what they're told. Father Christmas and tooth fairies are harmless enough. But a mind that's capable of believing in fairies is a mind that's vulnerable to all manner of other stuff. [CL 5]

How much of what we believe about our world is the result of what we have been conditioned or told to think? To what extent are we influenced by our parents and our surroundings? Or do we believe what we believe because we have actually and quite independently thought it through? [CLSG, p27]

Would Dawkins direct such criticisms against parents who taught their children that there is no God?

Would he commend children who, although reared by atheist parents, came to believe in God after having 'quite independently thought it through'?

If young people are as easily taken in as Dawkins thinks, then the persistence of atheism could also owe much to the gullibility of young people.

Consistency of argument

In Dawkins' writings there appear to be some discrepancies between the reasoning and assertions which are made in one place and those which appear in others:

1. Arguing from analogy

Dawkins constantly assumes that, since material objects have beginnings, God would also have had to have had an origin and asks 'who designed the divine creator?'[CLSG, p11] But he vehemently rejects (rightly) the similar argument from analogy that, since everyday objects have designers, the universe must have a designer.

If the universe doesn't need a designer, why should he claim that God needs one?

2. Design or designoid?

Dawkins claims that, since the evolutionary mechanism of chance variations + natural selection can account for the outcome of complexity, intelligent (God's) activity cannot be involved:

...there is another way and, once you have understood it, a far more plausible way, for complex 'design' to arise out of primeval simplicity.

[BWM, p xii]

Living objects... look designed, they look overwhelmingly as though they're designed. But it's terribly, terribly tempting to use the word designed... But I've told you that they are not designed and coined the special word 'designoid'...[CL 2]

But in an almost throw-away comment in the second of his Christmas Lectures he appears to undermine his position. He refers to a German designer who 'designs windmills and he claims that he designs his windmills by a kind of natural selection'. [CL 2] In the TV programme, The Blind Watchmaker, Dawkins calls this process 'Darwinian design'.

Dawkins has a fascinating computer programme, Biomorphs, to illustrate evolution by natural selection. He uses the double process of chance + selection. So the claim that chance variations + selection is incompatible with the actions of an intelligent agent, human or divine, is rebutted by these two examples. Perhaps this is what a certain commentator on The Blind Watchmaker had in mind when he referred to Dawkins as The Blind Biomorphmaker.

2. Language & metaphor

Dawkins says -

Natural selection,...has no purpose in mind. It has no mind and no mind's eye. It does not plan for the future. It has no vision, no foresight, no sight at all. If it can be said to play the role of watchmaker in nature, it is the blind watchmaker. [BWM, p5]

- yet in other places he invests concepts like nature, evolution, natural selection and chance with the abilities to 'choose', 'build', 'manufacture' and 'create':

Natural selection is like artificial selection, except that, instead of humans doing the choosing, nature does the choosing... Natural selection, nature, is constantly choosing which individuals shall live, which individuals shall breed [CL 2] [emphasis mine]

So am I really trying to persuade you that a blind, unconscious process, evolution, can build animal optics that rival human technology?...but evolution, the blind designer, using cumulative trial and error, can search the vast space of possible structures... blind chance on its own is no kind of watchmaker. But chance with natural selection, chance smeared out into innumerable tiny steps over aeons of time is powerful enough to manufacture miracles like dinosaurs and ourselves... yet we evolutionists seem to be saying that it [the eye] was created by blind chance...[BWM TV]

This is a misleading way to talk. Such use of these words degenerates into nonsense if a creating God is denied while a creating chance (+ natural selection) is affirmed.

Dawkins' selfish gene is also misleading, as it seems to oscillate between being treated as a metaphor and not being so treated. In one place he refers to 'The metaphor of the intelligent gene' [EP, p15], but in another place he responds to criticism of the term 'selfish' by saying:

When biologists talk about 'selfishness' or 'altruism' we...do not even mean the words in a metaphorical sense. We define altruism and selfishness in purely behaviouristic ways...[IDSG p557]

But despite the disclaimer, the phrase 'selfish gene' is metaphorical since 'a word or phrase denoting one kind of object or action is used in place of another to suggest a likeness or analogy between them'.

4. Wishful thinking

Dawkins depicts faith as simply reflecting the 'will to believe'. So he dismisses certain Creationists' claims that the Paluxy River 'footprints' show humans and dinosaurs were around at the same time, claiming they saw it because they wanted to see it. They believed it because it fitted with their world-view. They were blind to the truth that was staring them in the face.
[BWM TV]

But this a bad reason for rejecting anyone's views, as it tells us nothing about the truth or falsity of what they believe. One can both want to believe something and it can be true. The grounds for rejecting this particular claim (since withdrawn) are provided by geological and other evidence, not by whether anyone wished to believe it or not.

The charge of wishful thinking can equally well be laid against those who believe there is no God.

5. Meaning & purpose

In the first of his Christmas Lectures, Dawkins says that:

Some of life must be devoted to living itself; some of life must be devoted to doing something worthwhile with one's life, not just to perpetuating it. [CL 1]

But this stands in complete contradiction to his other assertion that 'propagating DNA...is every living object's sole reason for living' [CLSG, p21].

Is religion a scientific theory?

...until recently one of religion's main functions was scientific; the explanation of existence, of the universe, of life... So the most basic claims of religion are scientific. Religion is a scientific theory. [SCAG]

Dawkins' puzzling claim that 'religion is a scientific theory' underpins assertions like, 'I see God as a competing explanation for facts about the universe and life' [RTP, p46] and 'God and natural selection are, after all, the only two workable theories we have of why we exist'. [EP, p181]. However, while Dawkins uses the terms 'scientific theory', 'religion' and 'religious theory', he offers no demarcation criteria for scientific or religious theories which would enable us to evaluate his assertions.

There is no logical conflict between reason-giving explanations of mechanisms, and reason-giving explanations of the plans and purposes of an agent, human or divine. This is a logical point, unaffected by whether one does or does not believe in God oneself. In collapsing the distinction between these two types of explanations and treating them as alternatives, Dawkins is committing a type-error in explanation. In fact he is making the classic type-error -Coulson's 'God-of-the-gaps'- which tries to plug 'god' into the gaps which science is not yet able to fill!

Dawkins' alternatives, 'Either admit that God is a scientific hypothesis... Or admit that his status is no higher than that of fairies and river sprites' [RTP, p47] caricature a serious matter and coerce into an unnecessary either/or. It is difficult to conceive how even a superficial reading of, say, the New Testament Gospels could lead one to compare their value with stories about fairies and river sprites! To say, 'If God has a more solid basis than fairies, then let us hear it' [RTP, p47] implies nobody has yet thought or written about Christian evidences! Dawkins has ready access to the whole theological collection of the University of Oxford if he wishes to avail himself of its resources. But evidence for God is not the same as watching

intently for little people at the bottom of the garden on a mid-summer's night!

Summary of Richard Dawkin's The God Delusion Book

1) The God Hypothesis

□ There exists a superhuman, supernatural intelligence who deliberately designed and

created the universe and everything in it, including us. □

A theist believes in such a God who is intimately involved in human affairs: answering prayers, forgiving or

punishing sins, intervening in the world by performing miracles. This God is a pernicious delusion.

The existence of God is a scientific hypothesis: The religious claim of an interventionist God who answers prayers leads to a very different world from one without such a God. If God communicated with humans, that fact would not lie outside science. Even if we believe in a non-interventionist God, to claim an ultimate design of the universe implies a very different universe.

2) No Design □ No God

Evidence for design: The natural world looks as though it is designed.

However, evolution through

natural selection (Darwinism) gives us evidence to reject creation by design as well as creation by chance.

Religious people have argued that the natural world is so complex, it could not have evolved (for example,

the human eye). But natural selection is a cumulative process so that what seems highly improbable can be

broken up into steps which are not prohibitively improbable. Evolution is the only process, as far as we

know, capable of generating complexity from simplicity. We cannot be satisfied to say that this is a mystery

as it would mark an end to scientific investigation; ignorance drives scientists on.

We live on a that is friendly to our kind of life. There are two reasons for this:

- 1) Life has evolved to flourish in the conditions provided by the planet;
- 2) There are billions of planets in the universe and our planet is one of the few which is evolutionaryfriendly.

We live in a friendly universe. The laws and constants of physics are friendly enough to allow life to

arise; a very small difference would make life impossible.

□ A theist says that God tuned the constants such that the production of life was possible □ but this

leaves the existence of God unexplained. A God capable of calculating the values of the constants

is very improbable.

□ Some physicists think that the constants have to be the particular values they are for any universe.

□ Other physicists suggest that there are many co-existing universes, each one with a different set of

constants and laws; we are in one of the universes which happened to be propitious to our

eventual evolution.

A God capable of designing a universe (and who is claimed to be able to send and receive intelligible

signals to millions of people simultaneously) would have to be complex and would be statistically

improbable.

3) Why are there religions?

As religious rituals have a cost in both time and resources, an evolutionist has to ask the question, What is

the benefit? For evolutionists, "benefit" normally means, What is the enhancement to the survival of the individual's genes?

There is little evidence that religious belief protects people from stress-related diseases. It may be a

placebo that prolongs life by reducing stress but this does not explain the extent of the phenomenon.

Neuroscientists suggest there is a "god centre" in the brain, but

Darwinians then want to know what

natural selection favoured this.

I suggest that religion is a by-product of the way we bring up our children.

There is a selective advantage

for children to believe without question what grown-ups tell them in order for them to avoid what is

dangerous. This, though, makes them vulnerable to misinformation (mind viruses) such as religion.

How did religion start? One psychologist suggests that children have a natural tendency to:

- make a fundamental distinction between mind and matter. This compares with the view of most scientists who regard mind as a manifestation of matter.

- assign a purpose to everything (for example, clouds are □for raining□).

Both tendencies predispose us to religion. Genes are the physical entities which are responsible for

biological reproduction. In a similar way, memes may be responsible for transmitting culture in human

society. Just as there are copying errors (mutations) in genes, religion may be seen as a mutation of these

memes. Once religion has a hold, its attribute of being against reason helps its own survival.

4) Do we need religion in order to be good?

Genes are □selfish□ in the sense that, through the filter of natural selection theory, those that survive do so at the

expense of rivals. But this does not necessarily make the organism (humans) selfish.

There are four good Darwinian reasons for individuals to be altruistic:

- Genetic kinship: care for those who share similar genetic make-up.
- Reciprocation: giving of favours in anticipation of a payback.
- Acquiring a good reputation for generosity and kindness.
- Conspicuous generosity demonstrates superiority.

These □rules□ of altruism may be carried out even when there is no genetic advantage (example of a reed

warbler feeding a young cuckoo).

We don't need God or religion to have good morals. One study shows that there is no statistical

difference between atheists and religious believers in making moral judgements. Moral principles based only

upon religion may be called absolutist but, for example, "Is it always wrong to kill an embryo?"

Religious people don't derive their morals from scripture, or if they do, they choose the nice bits

and reject the nasty. There are many Old Testament passages which we would now describe as immoral.

In the New Testament we read that Jesus didn't derive his ethics from the scriptures of his day.

The central doctrine of Christianity is that Jesus was tortured and executed in payment for the

hereditary sin of Adam, including possible future sins. This is vicious, sado-masochistic and repellent. If God

wanted to forgive our sins, why not just forgive them? (One should note that The Holy Qur'an; the Holy Scripture

possessed by muslims) does say that Only God, the Creator is the one and only way to be Forgiving for our sins.)

He goes on to say " Religion makes the world's troubles worse, even when they can be described as political. Religion

exacerbates the world's problems through:

- ☐ Labelling of children in terms of their religion before they know what they believe.

- ☐ Segregated schools.

- ☐ Taboos against marrying outside the religious culture.

We have all changed our attitude to what is right and wrong over time, whether or not we are

religious. These changes have not come from religion. Individual atheists may do evil things but they don't

do evil things in the name of religion."

5) What is wrong with religion?

As a scientist, I am hostile to fundamentalist religion because it actively perverts the scientific enterprise

as it teaches us not to change our mind. Religious people who are not fundamentalists make the world safe

for fundamentalists by teaching children that an unquestioning faith is a virtue.

Only religious faith is a strong enough force to motivate utter madness of the terrorist acts

we have seen over the last few years. Our current war against terrorism is a war against religious idealists

who have an unquestioning faith.

The treasured heritage of our sacred religious books can be retained even when we give up our

belief in God. Any gap that religion leaves in the areas of explanation, exhortation, consolation and

inspiration can be filled in other ways. Explanation and inspiration can come from science.

□ The God Delusion Debate □ Between Richard Dawkins and John Lennox

Oxford University Professor Richard Dawkins debates with fellow Oxford University Professor John Lennox, in an Evolution vs. Creation debate that answers the most perplexing issues between both sides.

Richard Dawkins' best seller, "The God Delusion," basically asserts that believers in God are fantasizing, but John Lennox asserts the veracity of the Bible and of Creation. This debate was recorded on Oct. 3, 2007, at the University of Alabama at Birmingham to a sold-out auditorium and world-wide audience and was captured on DVD. This is perhaps the greatest debate ever between Evolution and Creation between, arguably, the two

greatest scientific minds in the 21st Century. What is remarkable is that Professor Dawkins does not, as a rule, debate with Creationists over the existence of God and Him as Creator.

To begin with, Professor Dawkins started with his own explanation for his belief in Evolution. He says that, "I found Darwin's explanation for life" made sense (12). He says that religious ideas are outdated, a delusion and calls it the "dragon of religion". He states that we don't need religion or a "holy book" to teach us the virtue of "not understanding" (20).

Mr. Dawkin seems to think that his beliefs in Evolution (an old outdated theory and we will talk more about that later on in this book) are somehow more proven than religion. And furthermore begins to say about of prejudice nonsense against religion and all religions about how it apparently teaches the virtue of not understanding. Obviously Mr. Dawkin's has the prejudice that only if you are atheist than you are modern. And that somehow scientists somewhere has disproven God with Evolution or whatever theory and Believing religious people just hasn't gotten the memo. Meanwhile this same individual is making up the that there may be

multiple universes and worlds, trillions upon trillions of them never seen. He openly makes this up as a mere justification to his randomly made universe theory. It's more like a joke. That's why one of his main scientific supporters calls it "A poor excuse for not having a Theory."

Professor Lennox began by saying that religion "does not build a firewall against scientific knowledge..."

Professor Dawkins then responds by saying that "The awesomeness of the universe's beauty makes us naturally want to worship. Science is an emancipation from religion to nature itself. The supreme achievement is from natural causes (23:40)." Everything came from bacteria - we don't know the process. Religion teaches us to be satisfied with not needing to know (25). What verse of scripture is he quoting? Teaches us to be satisfied with ignorance? That's just a plain lie. There have been many nontheistic scientists and inventors and more playing a part into history. People like Stephen Meyer believe and advocate a Theory of the Existence of God which scientists find quite difficult to come against. But of course Mr. Dawkins is just saying a bunch of prejudice and does not

consider people like Stephen Meyer to be real scientists. Why? Well, Because he believes in a Creator. 100 per cent prejudice. And we should not accept this, whether we be a Believer or non-Believer. Especially from someone who has fallen short of providing little or any proof of his theory. Here is a short list of scientists who believed in God.

Albert Einstein Nobel Laureate in Physics Jewish

Max Planck Nobel Laureate in Physics Protestant

Erwin Schrodinger Nobel Laureate in Physics Catholic

Werner Heisenberg Nobel Laureate in Physics Lutheran

Robert Millikan Nobel Laureate in Physics probably Congregationalist

Charles Hard Townes Nobel Laureate in Physics United Church of
Christ (raised Baptist)

Arthur Schawlow Nobel Laureate in Physics Methodist

William D. Phillips Nobel Laureate in Physics Methodist

William H. Bragg Nobel Laureate in Physics Anglican

Guglielmo Marconi Nobel Laureate in Physics Catholic and Anglican

Arthur Compton Nobel Laureate in Physics Presbyterian

Arno Penzias Nobel Laureate in Physics Jewish

Nevill Mott Nobel Laureate in Physics Anglican

Isidor Isaac Rabi Nobel Laureate in Physics Jewish

Abdus Salam Nobel Laureate in Physics Muslim

Antony Hewish Nobel Laureate in Physics Christian (denomination?)

Joseph H. Taylor, Jr. Nobel Laureate in Physics Quaker

Alexis Carrel Nobel Laureate in Medicine and Physiology Catholic

John Eccles Nobel Laureate in Medicine and Physiology Catholic

Joseph Murray Nobel Laureate in Medicine and Physiology Catholic

Ernst Chain Nobel Laureate in Medicine and Physiology Jewish

George Wald Nobel Laureate in Medicine and Physiology Jewish

Ronald Ross Nobel Laureate in Medicine and Physiology Christian
(denomination?)

Derek Barton Nobel Laureate in Chemistry Christian (denomination?)

Christian Anfinsen Nobel Laureate in Chemistry Jewish

Walter Kohn Nobel Laureate in Chemistry Jewish

Richard Smalley Nobel Laureate in Chemistry Christian (denomination?)

Professor Lennox then says to Professor Dawkins that "You have no evidence for the Flying Spaghetti Monster." It is rational and there is evidence for God's existence. Science is limited (27:45). Science can not decide moral, objective values. We know that strychnine added to your grandma's tea will kill her. It can not tell you why it is wrong. It is because there is a Moral Lawgiver. In the 16th and 17th Centuries, scientific knowledge exploded. Newton's Laws came about because he understood it increased praise of his God (30:33).

Professor Dawkins responded that it is "rationalism versus superstition." "Faith is evidence?" he asks, looking at Professor Lennox (32). Professor Lennox says, while looking at Professor Dawkins, "You have faith in your wife. You have evidence for it, right (33)?" Professor Dawkins responds by saying, it is "naturalism versus superstition. Creationism in the classroom - that's wrong (35); religion is about scientific claims about the universe - it's scientific? (37)"

Professor Lennox says that "Atheism undermines science" and that life is supposed to have "evolved by unguided random events. If our mind is just random atom movements of our brain, then how can we believe in any science? (41)" Continuing, he said "accidents?" If the universe is not constant and exact or it can not support life. Then Professor Lennox mentions Astronomy. Atheism would have us believe that the universe came out of nothing. No, there is an "underlying cause - planned" its exact, precise. The Big Bang, coming to full fruition if scientific thought in the 1960s, "Shows a finite beginning of space, time and matter. There was a beginning (43)."

Professor Dawkins says that if miracles did occur, they are "to be judged by scientific methods. Science deals with reality, religion - everything else." The question of "Who made God?". Professor Dawkins sees it as "an infinite regress from which He can not escape - who designed the Designer (46)?" About the origin of the universe, Professor Dawkins says, "We don't know the Cosmology - Cosmology is waiting for its Darwin (46:40). Darwin can not explain the origin of the universe (51)."

Professor Lennox then answers the question, "Who designed the Designer? Who created God?". Well then, who created creation? No one believes in a created God. In John, Chapter One, "In the beginning was the Word. Darwin believes in something eternal, like the universe (53). DNA carries meaning—the meaning of the message is not found in the message (56). [entering the second hour]

Professor Dawkins was asked about his reference to John Lennon's "Imagine" song, which describes a world without religion. "No suicide bombers, no 9/11, no Taliban. Even mild religion provides a climate of fanaticism. God still needs an explanation (1:01). Christianity [is] being dangerous to children - the evils of teaching them that faith is a virtue." He acknowledges that its "only a minority" that do this. Professor Lennox interrupts saying, "That's not said in your book though". Professor Dawkins continued, saying religion is "Convention - not to be questioned - and respected. Faith is a terrible weapon which justifies terrible acts (1:04).

Professor Lennox responds saying, "DNA [is a] biological message from an Intelligent Designer, better than a "blind watchmaker" (1:05). Jesus was put on trial as a dangerous radical religious leader, yet Pilot found Him guiltless." Then he comments on "A world without atheism. No Pol Pot, no "killing fields", no communistic murder of millions. Millions more died under atheism than Christianity in order to get rid of religions. Jews, Christian"any religious people" (1:05). Continuing, Professor Lennox says, that "Religion is not an open invitation to fanaticism - Christ taught the opposite. (1:10)"

Professor Dawkins then concedes that all "religious people do not do bad things - Atheism"Marxism was bad. Atheism is not like religion - to drive me to be a fanatical killer (1:12). The 9/11 bombers were rational, logical people who thought [it was] Allah"s will and their heaven and paradise were guaranteed (1:13). You may not do terrible things because you are an atheist, but you might because you"re a religious fanatic (1:15). Professor Lennox adds, "Atheism is a faith"don"t you believe? You believe that all the universe is all there is. (1:15)"

Professor Dawkins then says, "you don't need God to be moral" or you're trying to suck up and get rewards. You need a book for that!? If they do, their morals are hideous! A universal moral acceptance "The Golden Rule" is just common sense. Morals came from our evolutionary past. Good deeds allowed for sex. The Darwinian pressure for God is gone and contraceptives render good deeds not necessary. (1:17) Moral consensus has gone on. Every time you use contraceptives, you've removed any imperatives" (1:22).

Professor Lennox responds by saying "The very fact that an atheist can be good is not possible without a foundation. You can not get ethics from science (1:24). You (pointing to Professor Dawkins) said that "there is no good or evil" and why mention "universal moral acceptance if we are only "bouncing DNA"? (1:25)" [referring to Professor Dawkins' book] If we're only dancing to our DNA, the how can morality or the "Golden Rule" exist, as you called it (1:26)? You can't go from facts to values. So morality is from raw nature?!" You have said in your book (p. 92) that "miracles violate the laws of nature" (1:26). "Miracles are not violations of natural laws.

After closing remarks by both men, the audience provides a thunderous, standing ovation to both men, it would appear. One of the best debates I have ever seen in my life. I will not say who won or who lost. I know who presented the better arguments, and you might imagine who I believe best presented their case, but I will let you be the judge of that. I would recommend the DVD of "The God Delusion Debate." It is thoroughly entertaining and both men intelligently respond□and with all due respect, I applaud them both.

In order to perform this analysis, and to make it relevant and tractable to systematists and paleontologists, this paper will examine a paradigmatic example of the origin of biological form and information during the history of life: the Cambrian explosion. During the Cambrian, many novel animal forms and body plans (representing new phyla, subphyla and classes) arose in a geologically brief period of time. The following information-based analysis of the Cambrian explosion will support the claim of recent authors such as Muller and Newman that the mechanism of selection and genetic mutation does not constitute an adequate causal explanation of the

origination of biological form in the higher taxonomic groups. It will also suggest the need to explore other possible causal factors for the origin of form and information during the evolution of life and will examine some other possibilities that have been proposed.

The Cambrian Explosion

The "Cambrian explosion" refers to the geologically sudden appearance of many new animal body plans about 530 million years ago. At this time, at least nineteen, and perhaps as many as thirty-five phyla of forty total (Meyer et al. 2003), made their first appearance on earth within a narrow five- to ten-million-year window of geologic time (Bowring et al. 1993, 1998a:1, 1998b:40; Kerr 1993; Monastersky 1993; Aris-Brosou & Yang 2003). Many new subphyla, between 32 and 48 of 56 total (Meyer et al. 2003), and classes of animals also arose at this time with representatives of these new higher taxa manifesting significant morphological innovations. The Cambrian explosion thus marked a major episode of morphogenesis in which many new and disparate organismal forms arose in a geologically brief period of time.

To say that the fauna of the Cambrian period appeared in a geologically sudden manner also implies the absence of clear transitional intermediate forms connecting Cambrian animals with simpler pre-Cambrian forms. And, indeed, in almost all cases, the Cambrian animals have no clear morphological antecedents in earlier Vendian or Precambrian fauna (Miklos 1993, Erwin et al. 1997:132, Steiner & Reitner 2001, Conway Morris 2003b:510, Valentine et al. 2003:519-520). Further, several recent discoveries and analyses suggest that these morphological gaps may not be merely an artifact of incomplete sampling of the fossil record (Foote 1997, Foote et al. 1999, Benton & Ayala 2003, Meyer et al. 2003), suggesting that the fossil record is at least approximately reliable (Conway Morris 2003b:505).

As a result, debate now exists about the extent to which this pattern of evidence comports with a strictly monophyletic view of evolution (Conway Morris 1998a, 2003a, 2003b:510; Willmer 1990, 2003). Further, among those who accept a monophyletic view of the history of life, debate exists about whether to privilege fossil or molecular data and analyses. Those who think the fossil data provide a more reliable picture of the origin of the

Metazoan tend to think these animals arose relatively quickly--that the Cambrian explosion had a "short fuse." (Conway Morris 2003b:505-506, Valentine & Jablonski 2003). Some (Wray et al. 1996), but not all (Ayala et al. 1998), who think that molecular phylogenies establish reliable divergence times from pre-Cambrian ancestors think that the Cambrian animals evolved over a very long period of time--that the Cambrian explosion had a "long fuse." This review will not address these questions of historical pattern. Instead, it will analyze whether the neo-Darwinian process of mutation and selection, or other processes of evolutionary change, can generate the form and information necessary to produce the animals that arise in the Cambrian. This analysis will, for the most part, therefore, not depend upon assumptions of either a long or short fuse for the Cambrian explosion, or upon a monophyletic or polyphyletic view of the early history of life.

Defining Biological Form and Information

Form, like life itself, is easy to recognize but often hard to define precisely. Yet, a reasonable working definition of form will suffice for our present

purposes. Form can be defined as the four-dimensional topological relations of anatomical parts. This means that one can understand form as a unified arrangement of body parts or material components in a distinct shape or pattern (topology)--one that exists in three spatial dimensions and which arises in time during ontogeny.

Insofar as any particular biological form constitutes something like a distinct arrangement of constituent body parts, form can be seen as arising from constraints that limit the possible arrangements of matter. Specifically, organismal form arises (both in phylogeny and ontogeny) as possible arrangements of material parts are constrained to establish a specific or particular arrangement with an identifiable three dimensional topography--one that we would recognize as a particular protein, cell type, organ, body plan or organism. A particular □form,□ therefore, represents a highly specific and constrained arrangement of material components (among a much larger set of possible arrangements).

Understanding form in this way suggests a connection to the notion of information in its most theoretically general sense. When Shannon (1948)

first developed a mathematical theory of information he equated the amount of information transmitted with the amount of uncertainty reduced or eliminated in a series of symbols or characters. Information, in Shannon's theory, is thus imparted as some options are excluded and others are actualized. The greater the number of options excluded, the greater the amount of information conveyed. Further, constraining a set of possible material arrangements by whatever process or means involves excluding some options and actualizing others. Thus, to constrain a set of possible material states is to generate information in Shannon's sense. It follows that the constraints that produce biological form also imparted information. Or conversely, one might say that producing organismal form by definition requires the generation of information.

In classical Shannon information theory, the amount of information in a system is also inversely related to the probability of the arrangement of constituents in a system or the characters along a communication channel (Shannon 1948). The more improbable (or complex) the arrangement, the more Shannon information, or information-carrying capacity, a string or system possesses.

Since the 1960s, mathematical biologists have realized that Shannon's theory could be applied to the analysis of DNA and proteins to measure the information-carrying capacity of these macromolecules. Since DNA contains the assembly instructions for building proteins, the information-processing system in the cell represents a kind of communication channel (Yockey 1992:110). Further, DNA conveys information via specifically arranged sequences of nucleotide bases. Since each of the four bases has a roughly equal chance of occurring at each site along the spine of the DNA molecule, biologists can calculate the probability, and thus the information-carrying capacity, of any particular sequence n bases long.

The ease with which information theory applies to molecular biology has created confusion about the type of information that DNA and proteins possess. Sequences of nucleotide bases in DNA, or amino acids in a protein, are highly improbable and thus have large information-carrying capacities. But, like meaningful sentences or lines of computer code, genes and proteins are also specified with respect to function. Just as the meaning of a sentence depends upon the specific arrangement of the letters in a sentence, so too does the function of a gene sequence depend upon the specific arrangement of the nucleotide bases in a gene. Thus,

molecular biologists beginning with Crick equated information not only with complexity but also with "specificity," where "specificity" or "specified" has meant "necessary to function" (Crick 1958:144, 153; Sarkar, 1996:191).³ Molecular biologists such as Monod and Crick understood biological information--the information stored in DNA and proteins--as something more than mere complexity (or improbability). Their notion of information associated both biochemical contingency and combinatorial complexity with DNA sequences (allowing DNA's carrying capacity to be calculated), but it also affirmed that sequences of nucleotides and amino acids in functioning macromolecules possessed a high degree of specificity relative to the maintenance of cellular function.

The ease with which information theory applies to molecular biology has also created confusion about the location of information in organisms. Perhaps because the information carrying capacity of the gene could be so easily measured, it has been easy to treat DNA, RNA and proteins as the sole repositories of biological information. Neo-Darwinists in particular have assumed that the origination of biological form could be explained by recourse to processes of genetic variation and mutation alone (Levinton 1988:485). Yet if one understands organismal form as resulting from

constraints on the possible arrangements of matter at many levels in the biological hierarchy--from genes and proteins to cell types and tissues to organs and body plans--then clearly biological organisms exhibit many levels of information-rich structure.

Thus, we can pose a question, not only about the origin of genetic information, but also about the origin of the information necessary to generate form and structure at levels higher than that present in individual proteins. We must also ask about the origin of the "specified complexity," as opposed to mere complexity, that characterizes the new genes, proteins, cell types and body plans that arose in the Cambrian explosion. Dembski (2002) has used the term "complex specified information" (CSI) as a synonym for "specified complexity" to help distinguish functional biological information from mere Shannon information--that is, specified complexity from mere complexity. This review will use this term as well.

The Cambrian Information Explosion

The Cambrian explosion represents a remarkable jump in the specified complexity or □complex specified information□ (CSI) of the biological world. For over three billions years, the biological realm included little more than bacteria and algae (Brocks et al. 1999). Then, beginning about 570-565 million years ago (mya), the first complex multicellular organisms appeared in the rock strata, including sponges, cnidarians, and the peculiar Ediacaran biota (Grotzinger et al. 1995). Forty million years later, the Cambrian explosion occurred (Bowring et al. 1993). The emergence of the Ediacaran biota (570 mya), and then to a much greater extent the Cambrian explosion (530 mya), represented steep climbs up the biological complexity gradient.

One way to estimate the amount of new CSI that appeared with the Cambrian animals is to count the number of new cell types that emerged with them (Valentine 1995:91-93). Studies of modern animals suggest that the sponges that appeared in the late Precambrian, for example, would have required five cell types, whereas the more complex animals that appeared in the Cambrian (e.g., arthropods) would have required fifty or more cell types. Functionally more complex animals require more cell types to perform their more diverse functions. New cell types require many new

and specialized proteins. New proteins, in turn, require new genetic information. Thus an increase in the number of cell types implies (at a minimum) a considerable increase in the amount of specified genetic information. Molecular biologists have recently estimated that a minimally complex single-celled organism would require between 318 and 562 kilobase pairs of DNA to produce the proteins necessary to maintain life (Koonin 2000). More complex single cells might require upward of a million base pairs. Yet to build the proteins necessary to sustain a complex arthropod such as a trilobite would require orders of magnitude more coding instructions. The genome size of a modern arthropod, the fruitfly *Drosophila melanogaster*, is approximately 180 million base pairs (Gerhart & Kirschner 1997:121, Adams et al. 2000). Transitions from a single cell to colonies of cells to complex animals represent significant (and, in principle, measurable) increases in CSI.

Building a new animal from a single-celled organism requires a vast amount of new genetic information. It also requires a way of arranging gene products--proteins--into higher levels of organization. New proteins are required to service new cell types. But new proteins must be organized into new systems within the cell; new cell types must be organized into new

tissues, organs, and body parts. These, in turn, must be organized to form body plans. New animals, therefore, embody hierarchically organized systems of lower-level parts within a functional whole. Such hierarchical organization itself represents a type of information, since body plans comprise both highly improbable and functionally specified arrangements of lower-level parts. The specified complexity of new body plans requires explanation in any account of the Cambrian explosion.

Can neo-Darwinism explain the discontinuous increase in CSI that appears in the Cambrian explosion--either in the form of new genetic information or in the form of hierarchically organized systems of parts? We will now examine the two parts of this question.

Novel Genes and Proteins

Many scientists and mathematicians have questioned the ability of mutation and selection to generate information in the form of novel genes and proteins. Such skepticism often derives from consideration of the extreme improbability (and specificity) of functional genes and proteins.

A typical gene contains over one thousand precisely arranged bases. For any specific arrangement of four nucleotide bases of length n , there is a corresponding number of possible arrangements of bases, 4^n . For any protein, there are 20^n possible arrangements of protein-forming amino acids. A gene 999 bases in length represents one of 4^{999} possible nucleotide sequences; a protein of 333 amino acids is one of 20^{333} possibilities.

Since the 1960s, some biologists have thought functional proteins to be rare among the set of possible amino acid sequences. Some have used an analogy with human language to illustrate why this should be the case. Denton (1986, 309-311), for example, has shown that meaningful words and sentences are extremely rare among the set of possible combinations of English letters, especially as sequence length grows. (The ratio of meaningful 12-letter words to 12-letter sequences is $1/10^{14}$, the ratio of 100-letter sentences to possible 100-letter strings is $1/10^{100}$.) Further, Denton shows that most meaningful sentences are highly isolated from one another in the space of possible combinations, so that random substitutions of letters will, after a very few changes, inevitably degrade meaning. Apart

from a few closely clustered sentences accessible by random substitution, the overwhelming majority of meaningful sentences lie, probabilistically speaking, beyond the reach of random search.

Denton (1986:301-324) and others have argued that similar constraints apply to genes and proteins. They have questioned whether an undirected search via mutation and selection would have a reasonable chance of locating new islands of function--representing fundamentally new genes or proteins--within the time available (Eden 1967, Shutzenberger 1967, Lovtrup 1979). Some have also argued that alterations in sequencing would likely result in loss of protein function before fundamentally new function could arise (Eden 1967, Denton 1986). Nevertheless, neither the extent to which genes and proteins are sensitive to functional loss as a result of sequence change, nor the extent to which functional proteins are isolated within sequence space, has been fully known.

Recently, experiments in molecular biology have shed light on these questions. A variety of mutagenesis techniques have shown that proteins (and thus the genes that produce them) are indeed highly specified relative

to biological function (Bowie & Sauer 1989, Reidhaar-Olson & Sauer 1990, Taylor et al. 2001). Mutagenesis research tests the sensitivity of proteins (and, by implication, DNA) to functional loss as a result of alterations in sequencing. Studies of proteins have long shown that amino acid residues at many active positions cannot vary without functional loss (Perutz & Lehmann 1968). More recent protein studies (often using mutagenesis experiments) have shown that functional requirements place significant constraints on sequencing even at non-active site positions (Bowie & Sauer 1989, Reidhaar-Olson & Sauer 1990, Chothia et al. 1998, Axe 2000, Taylor et al. 2001). In particular, Axe (2000) has shown that multiple as opposed to single position amino acid substitutions inevitably result in loss of protein function, even when these changes occur at sites that allow variation when altered in isolation. Cumulatively, these constraints imply that proteins are highly sensitive to functional loss as a result of alterations in sequencing, and that functional proteins represent highly isolated and improbable arrangements of amino acids -arrangements that are far more improbable, in fact, than would be likely to arise by chance alone in the time available (Reidhaar-Olson & Sauer 1990; Behe 1992; Kauffman 1995:44; Dembski 1998:175-223; Axe 2000, 2004). (See below the discussion of the neutral theory of evolution for a precise quantitative assessment.)

Of course, neo-Darwinists do not envision a completely random search through the set of all possible nucleotide sequences--so-called "sequence space." They envision natural selection acting to preserve small advantageous variations in genetic sequences and their corresponding protein products. Dawkins (1996), for example, likens an organism to a high mountain peak. He compares climbing the sheer precipice up the front side of the mountain to building a new organism by chance. He acknowledges that his approach up "Mount Improbable" will not succeed. Nevertheless, he suggests that there is a gradual slope up the backside of the mountain that could be climbed in small incremental steps. In his analogy, the backside climb up "Mount Improbable" corresponds to the process of natural selection acting on random changes in the genetic text. What chance alone cannot accomplish blindly or in one leap, selection (acting on mutations) can accomplish through the cumulative effect of many slight successive steps.

Yet the extreme specificity and complexity of proteins presents a difficulty, not only for the chance origin of specified biological information (i.e., for random mutations acting alone), but also for selection and mutation acting

in concert. Indeed, mutagenesis experiments cast doubt on each of the two scenarios by which neo-Darwinists envisioned new information arising from the mutation/selection mechanism (for review, see Lonnig 2001). For neo-Darwinism, new functional genes either arise from non-coding sections in the genome or from preexisting genes. Both scenarios are problematic.

In the first scenario, neo-Darwinists envision new genetic information arising from those sections of the genetic text that can presumably vary freely without consequence to the organism. According to this scenario, non-coding sections of the genome, or duplicated sections of coding regions, can experience a protracted period of "neutral evolution" (Kimura 1983) during which alterations in nucleotide sequences have no discernible effect on the function of the organism. Eventually, however, a new gene sequence will arise that can code for a novel protein. At that point, natural selection can favor the new gene and its functional protein product, thus securing the preservation and heritability of both.

This scenario has the advantage of allowing the genome to vary through many generations, as mutations "search" the space of possible base

sequences. The scenario has an overriding problem, however: the size of the combinatorial space (i.e., the number of possible amino acid sequences) and the extreme rarity and isolation of the functional sequences within that space of possibilities. Since natural selection can do nothing to help generate new functional sequences, but rather can only preserve such sequences once they have arisen, chance alone--random variation--must do the work of information generation--that is, of finding the exceedingly rare functional sequences within the set of combinatorial possibilities. Yet the probability of randomly assembling (or "finding," in the previous sense) a functional sequence is extremely small.

Cassette mutagenesis experiments performed during the early 1990s suggest that the probability of attaining (at random) the correct sequencing for a short protein 100 amino acids long is about 1 in 10⁶⁵ (Reidhaar-Olson & Sauer 1990, Behe 1992:65-69). This result agreed closely with earlier calculations that Yockey (1978) had performed based upon the known sequence variability of cytochrome c in different species and other theoretical considerations. More recent mutagenesis research has provided additional support for the conclusion that functional proteins are exceedingly rare among possible amino acid sequences (Axe 2000, 2004).

Axe (2004) has performed site directed mutagenesis experiments on a 150-residue protein-folding domain within a B-lactamase enzyme. His experimental method improves upon earlier mutagenesis techniques and corrects for several sources of possible estimation error inherent in them. On the basis of these experiments, Axe has estimated the ratio of (a) proteins of typical size (150 residues) that perform a specified function via any folded structure to (b) the whole set of possible amino acids sequences of that size. Based on his experiments, Axe has estimated his ratio to be 1 to 1077. Thus, the probability of finding a functional protein among the possible amino acid sequences corresponding to a 150-residue protein is similarly 1 in 1077.

Other considerations imply additional improbabilities. First, new Cambrian animals would require proteins much longer than 100 residues to perform many necessary specialized functions. Ohno (1996) has noted that Cambrian animals would have required complex proteins such as lysyl oxidase in order to support their stout body structures. Lysyl oxidase molecules in extant organisms comprise over 400 amino acids. These molecules are both highly complex (non-repetitive) and functionally specified. Reasonable extrapolation from mutagenesis experiments done

on shorter protein molecules suggests that the probability of producing functionally sequenced proteins of this length at random is so small as to make appeals to chance absurd, even granting the duration of the entire universe. (See Dembski 1998:175-223 for a rigorous calculation of this □Universal Probability Bound□; See also Axe 2004.) Yet, second, fossil data (Bowring et al. 1993, 1998a:1, 1998b:40; Kerr 1993; Monastersky 1993), and even molecular analyses supporting deep divergence (Wray et al. 1996), suggest that the duration of the Cambrian explosion (between 5×10^6 and, at most, 7×10^7 years) is far smaller than that of the entire universe (1.3×10^{10} years). Third, DNA mutation rates are far too low to generate the novel genes and proteins necessary to building the Cambrian animals, given the most probable duration of the explosion as determined by fossil studies (Conway Morris 1998b). As Ohno (1996:8475) notes, even a mutation rate of 10^{-9} per base pair per year results in only a 1% change in the sequence of a given section of DNA in 10 million years. Thus, he argues that mutational divergence of preexisting genes cannot explain the origin of the Cambrian forms in that time.⁴

The selection/mutation mechanism faces another probabilistic obstacle. The animals that arise in the Cambrian exhibit structures that would have

required many new types of cells, each of which would have required many novel proteins to perform their specialized functions. Further, new cell types require systems of proteins that must, as a condition of functioning, act in close coordination with one another. The unit of selection in such systems ascends to the system as a whole. Natural selection selects for functional advantage. But new cell types require whole systems of proteins to perform their distinctive functions. In such cases, natural selection cannot contribute to the process of information generation until after the information necessary to build the requisite system of proteins has arisen. Thus random variations must, again, do the work of information generation--and now not simply for one protein, but for many proteins arising at nearly the same time. Yet the odds of this occurring by chance alone are, of course, far smaller than the odds of the chance origin of a single gene or protein--so small in fact as to render the chance origin of the genetic information necessary to build a new cell type (a necessary but not sufficient condition of building a new body plan) problematic given even the most optimistic estimates for the duration of the Cambrian explosion.

Dawkins (1986:139) has noted that scientific theories can rely on only so much "luck" before they cease to be credible. The neutral theory of

evolution, which, by its own logic, prevents natural selection from playing a role in generating genetic information until after the fact, relies on entirely too much luck. The sensitivity of proteins to functional loss, the need for long proteins to build new cell types and animals, the need for whole new systems of proteins to service new cell types, the probable brevity of the Cambrian explosion relative to mutation rates--all suggest the immense improbability (and implausibility) of any scenario for the origination of Cambrian genetic information that relies upon random variation alone unassisted by natural selection.

Yet the neutral theory requires novel genes and proteins to arise--essentially--by random mutation alone. Adaptive advantage accrues after the generation of new functional genes and proteins. Thus, natural selection cannot play a role until new information-bearing molecules have independently arisen. Thus neutral theorists envisioned the need to scale the steep face of a Dawkins-style precipice of which there is no gradually sloping backside--a situation that, by Dawkins' own logic, is probabilistically untenable.

In the second scenario, neo-Darwinists envisioned novel genes and proteins arising by numerous successive mutations in the preexisting genetic text that codes for proteins. To adapt Dawkins's metaphor, this scenario envisions gradually climbing down one functional peak and then ascending another. Yet mutagenesis experiments again suggest a difficulty. Recent experiments show that, even when exploring a region of sequence space populated by proteins of a single fold and function, most multiple-position changes quickly lead to loss of function (Axe 2000). Yet to turn one protein into another with a completely novel structure and function requires specified changes at many sites. Indeed, the number of changes necessary to produce a new protein greatly exceeds the number of changes that will typically produce functional losses. Given this, the probability of escaping total functional loss during a random search for the changes needed to produce a new function is extremely small--and this probability diminishes exponentially with each additional requisite change (Axe 2000). Thus, Axe's results imply that, in all probability, random searches for novel proteins (through sequence space) will result in functional loss long before any novel functional protein will emerge.

Blanco et al. have come to a similar conclusion. Using directed mutagenesis, they have determined that residues in both the hydrophobic core and on the surface of the protein play essential roles in determining protein structure. By sampling intermediate sequences between two naturally occurring sequences that adopt different folds, they found that the intermediate sequences lack a well defined three-dimensional structure. Thus, they conclude that it is unlikely that a new protein fold via a series of folded intermediates sequences (Blanco et al. 1999:741).

Thus, although this second neo-Darwinian scenario has the advantage of starting with functional genes and proteins, it also has a lethal disadvantage: any process of random mutation or rearrangement in the genome would in all probability generate nonfunctional intermediate sequences before fundamentally new functional genes or proteins would arise. Clearly, nonfunctional intermediate sequences confer no survival advantage on their host organisms. Natural selection favors only functional advantage. It cannot select or favor nucleotide sequences or polypeptide chains that do not yet perform biological functions, and still less will it favor sequences that efface or destroy preexisting function.

Evolving genes and proteins will range through a series of nonfunctional intermediate sequences that natural selection will not favor or preserve but will, in all probability, eliminate (Blanco et al. 1999, Axe 2000). When this happens, selection-driven evolution will cease. At this point, neutral evolution of the genome (unhinged from selective pressure) may ensue, but, as we have seen, such a process must overcome immense probabilistic hurdles, even granting cosmic time.

Thus, whether one envisions the evolutionary process beginning with a noncoding region of the genome or a preexisting functional gene, the functional specificity and complexity of proteins impose very stringent limitations on the efficacy of mutation and selection. In the first case, function must arise first, before natural selection can act to favor a novel variation. In the second case, function must be continuously maintained in order to prevent deleterious (or lethal) consequences to the organism and to allow further evolution. Yet the complexity and functional specificity of proteins implies that both these conditions will be extremely difficult to meet. Therefore, the neo-Darwinian mechanism appears to be inadequate to generate the new information present in the novel genes and proteins that arise with the Cambrian animals.

Novel Body Plans

The problems with the neo-Darwinian mechanism run deeper still. In order to explain the origin of the Cambrian animals, one must account not only for new proteins and cell types, but also for the origin of new body plans. Within the past decade, developmental biology has dramatically advanced our understanding of how body plans are built during ontogeny. In the process, it has also uncovered a profound difficulty for neo-Darwinism.

Significant morphological change in organisms requires attention to timing. Mutations in genes that are expressed late in the development of an organism will not affect the body plan. Mutations expressed early in development, however, could conceivably produce significant morphological change (Arthur 1997:21). Thus, events expressed early in the development of organisms have the only realistic chance of producing large-scale macroevolutionary change (Thomson 1992). As John and Miklos (1988:309) explain, macroevolutionary change requires alterations in the very early stages of ontogenesis.

Yet recent studies in developmental biology make clear that mutations expressed early in development typically have deleterious effects (Arthur 1997:21). For example, when early-acting body plan molecules, or morphogens such as bicoid (which helps to set up the anterior-posterior head-to-tail axis in *Drosophila*), are perturbed, development shuts down (Nusslein-Volhard & Wieschaus 1980, Lawrence & Struhl 1996, Muller & Newman 2003).⁵ The resulting embryos die. Moreover, there is a good reason for this. If an engineer modifies the length of the piston rods in an internal combustion engine without modifying the crankshaft accordingly, the engine won't start. Similarly, processes of development are tightly integrated spatially and temporally such that changes early in development will require a host of other coordinated changes in separate but functionally interrelated developmental processes downstream. For this reason, mutations will be much more likely to be deadly if they disrupt a functionally deeply-embedded structure such as a spinal column than if they affect more isolated anatomical features such as fingers (Kauffman 1995:200).

This problem has led to what McDonald (1983) has called "a great Darwinian paradox" (p. 93). McDonald notes that genes that are observed

to vary within natural populations do not lead to major adaptive changes, while genes that could cause major changes--the very stuff of macroevolution--apparently do not vary. In other words, mutations of the kind that macroevolution doesn't need (namely, viable genetic mutations in DNA expressed late in development) do occur, but those that it does need (namely, beneficial body plan mutations expressed early in development) apparently don't occur.⁶ According to Darwin (1859:108) natural selection cannot act until favorable variations arise in a population. Yet there is no evidence from developmental genetics that the kind of variations required by neo-Darwinism--namely, favorable body plan mutations--ever occur.

Developmental biology has raised another formidable problem for the mutation/selection mechanism. Embryological evidence has long shown that DNA does not wholly determine morphological form (Goodwin 1985, Nijhout 1990, Sapp 1987, Muller & Newman 2003), suggesting that mutations in DNA alone cannot account for the morphological changes required to build a new body plan.

DNA helps direct protein synthesis.⁷ It also helps to regulate the timing and expression of the synthesis of various proteins within cells. Yet, DNA alone does not determine how individual proteins assemble themselves into larger systems of proteins; still less does it solely determine how cell types, tissue types, and organs arrange themselves into body plans (Harold 1995:2774, Moss 2004). Instead, other factors--such as the three-dimensional structure and organization of the cell membrane and cytoskeleton and the spatial architecture of the fertilized egg--play important roles in determining body plan formation during embryogenesis.

For example, the structure and location of the cytoskeleton influence the patterning of embryos. Arrays of microtubules help to distribute the essential proteins used during development to their correct locations in the cell. Of course, microtubules themselves are made of many protein subunits. Nevertheless, like bricks that can be used to assemble many different structures, the tubulin subunits in the cell's microtubules are identical to one another. Thus, neither the tubulin subunits nor the genes that produce them account for the different shape of microtubule arrays that distinguish different kinds of embryos and developmental pathways. Instead, the structure of the microtubule array itself is determined by the

location and arrangement of its subunits, not the properties of the subunits themselves. For this reason, it is not possible to predict the structure of the cytoskeleton of the cell from the characteristics of the protein constituents that form that structure (Harold 2001:125).

Two analogies may help further clarify the point. At a building site, builders will make use of many materials: lumber, wires, nails, drywall, piping, and windows. Yet building materials do not determine the floor plan of the house, or the arrangement of houses in a neighborhood. Similarly, electronic circuits are composed of many components, such as resistors, capacitors, and transistors. But such lower-level components do not determine their own arrangement in an integrated circuit. Biological symptoms also depend on hierarchical arrangements of parts. Genes and proteins are made from simple building blocks--nucleotide bases and amino acids--arranged in specific ways. Cell types are made of, among other things, systems of specialized proteins. Organs are made of specialized arrangements of cell types and tissues. And body plans comprise specific arrangements of specialized organs. Yet, clearly, the properties of individual proteins (or, indeed, the lower-level parts in the hierarchy generally) do not fully determine the organization of the higher-

level structures and organizational patterns (Harold 2001:125). It follows that the genetic information that codes for proteins does not determine these higher-level structures either.

These considerations pose another challenge to the sufficiency of the neo-Darwinian mechanism. Neo-Darwinism seeks to explain the origin of new information, form, and structure as a result of selection acting on randomly arising variation at a very low level within the biological hierarchy, namely, within the genetic text. Yet major morphological innovations depend on a specificity of arrangement at a much higher level of the organizational hierarchy, a level that DNA alone does not determine. Yet if DNA is not wholly responsible for body plan morphogenesis, then DNA sequences can mutate indefinitely, without regard to realistic probabilistic limits, and still not produce a new body plan. Thus, the mechanism of natural selection acting on random mutations in DNA cannot in principle generate novel body plans, including those that first arose in the Cambrian explosion.

Of course, it could be argued that, while many single proteins do not by themselves determine cellular structures and/or body plans, proteins acting

in concert with other proteins or suites of proteins could determine such higher-level form. For example, it might be pointed out that the tubulin subunits (cited above) are assembled by other helper proteins--gene products--called Microtubule Associated Proteins (MAPS). This might seem to suggest that genes and gene products alone do suffice to determine the development of the three-dimensional structure of the cytoskeleton.

Yet MAPS, and indeed many other necessary proteins, are only part of the story. The location of specified target sites on the interior of the cell membrane also helps to determine the shape of the cytoskeleton. Similarly, so does the position and structure of the centrosome which nucleates the microtubules that form the cytoskeleton. While both the membrane targets and the centrosomes are made of proteins, the location and form of these structures is not wholly determined by the proteins that form them. Indeed, centrosome structure and membrane patterns as a whole convey three-dimensional structural information that helps determine the structure of the cytoskeleton and the location of its subunits (McNiven & Porter 1992:313-329). Moreover, the centrioles that compose the centrosomes replicate independently of DNA replication (Lange et al. 2000:235-249, Marshall & Rosenbaum 2000:187-205). The daughter centriole receives its form from

the overall structure of the mother centriole, not from the individual gene products that constitute it (Lange et al. 2000). In ciliates, microsurgery on cell membranes can produce heritable changes in membrane patterns, even though the DNA of the ciliates has not been altered (Sonneborn 1970:1-13, Frankel 1980:607-623; Nanney 1983:163-170). This suggests that membrane patterns (as opposed to membrane constituents) are impressed directly on daughter cells. In both cases, form is transmitted from parent three-dimensional structures to daughter three-dimensional structures directly and is not wholly contained in constituent proteins or genetic information (Moss 2004).

Thus, in each new generation, the form and structure of the cell arises as the result of both gene products and preexisting three-dimensional structure and organization. Cellular structures are built from proteins, but proteins find their way to correct locations in part because of preexisting three-dimensional patterns and organization inherent in cellular structures. Preexisting three-dimensional form present in the preceding generation (whether inherent in the cell membrane, the centrosomes, the cytoskeleton or other features of the fertilized egg) contributes to the production of form in the next generation. Neither structural proteins alone, nor the genes that

code for them, are sufficient to determine the three-dimensional shape and structure of the entities they form. Gene products provide necessary, but not sufficient conditions, for the development of three-dimensional structure within cells, organs and body plans (Harold 1995:2767). But if this is so, then natural selection acting on genetic variation alone cannot produce the new forms that arise in history of life.

Self-Organizational Models

Of course, neo-Darwinism is not the only evolutionary theory for explaining the origin of novel biological form. Kauffman (1995) doubts the efficacy of the mutation/selection mechanism. Nevertheless, he has advanced a self-organizational theory to account for the emergence of new form, and presumably the information necessary to generate it. Whereas neo-Darwinism attempts to explain new form as the consequence of selection acting on random mutation, Kauffman suggests that selection acts, not mainly on random variations, but on emergent patterns of order that self-organize via the laws of nature.

Kauffman (1995:47-92) illustrates how this might work with various model systems in a computer environment. In one, he conceives a system of buttons connected by strings. Buttons represent novel genes or gene products; strings represent the law-like forces of interaction that obtain between gene products-i.e., proteins. Kauffman suggests that when the complexity of the system (as represented by the number of buttons and strings) reaches a critical threshold, new modes of organization can arise in the system "for free"--that is, naturally and spontaneously--after the manner of a phase transition in chemistry.

Another model that Kauffman develops is a system of interconnected lights. Each light can flash in a variety of states--on, off, twinkling, etc. Since there is more than one possible state for each light, and many lights, there are a vast number of possible states that the system can adopt. Further, in his system, rules determine how past states will influence future states. Kauffman asserts that, as a result of these rules, the system will, if properly tuned, eventually produce a kind of order in which a few basic patterns of light activity recur with greater-than-random frequency. Since these actual patterns of light activity represent a small portion of the total number of possible states in which the system can reside, Kauffman seems

to imply that self-organizational laws might similarly result in highly improbable biological outcomes--perhaps even sequences (of bases or amino acids) within a much larger sequence space of possibilities.

Do these simulations of self-organizational processes accurately model the origin of novel genetic information? It is hard to think so.

First, in both examples, Kauffman presupposes but does not explain significant sources of preexisting information. In his buttons-and-strings system, the buttons represent proteins, themselves packets of CSI, and the result of preexisting genetic information. Where does this information come from? Kauffman (1995) doesn't say, but the origin of such information is an essential part of what needs to be explained in the history of life. Similarly, in his light system, the order that allegedly arises for "for free" actually arises only if the programmer of the model system "tunes" it in such a way as to keep it from either (a) generating an excessively rigid order or (b) developing into chaos (pp. 86-88). Yet this necessary tuning involves an intelligent programmer selecting certain parameters and excluding others--that is, inputting information.

Second, Kauffman's model systems are not constrained by functional considerations and thus are not analogous to biological systems. A system of interconnected lights governed by pre-programmed rules may well settle into a small number of patterns within a much larger space of possibilities. But because these patterns have no function, and need not meet any functional requirements, they have no specificity analogous to that present in actual organisms. Instead, examination of Kauffman's (1995) model systems shows that they do not produce sequences or systems characterized by specified complexity, but instead by large amounts of symmetrical order or internal redundancy interspersed with aperiodicity or (mere) complexity (pp. 53, 89, 102). Getting a law-governed system to generate repetitive patterns of flashing lights, even with a certain amount of variation, is clearly interesting, but not biologically relevant. On the other hand, a system of lights flashing the title of a Broadway play would model a biologically relevant self-organizational process, at least if such a meaningful or functionally specified sequence arose without intelligent agents previously programming the system with equivalent amounts of CSI. In any case, Kauffman's systems do not produce specified complexity, and

thus do not offer promising models for explaining the new genes and proteins that arose in the Cambrian.

Even so, Kauffman suggests that his self-organizational models can specifically elucidate aspects of the Cambrian explosion. According to Kauffman (1995:199-201), new Cambrian animals emerged as the result of □long jump□ mutations that established new body plans in a discrete rather than gradual fashion. He also recognizes that mutations affecting early development are almost inevitably harmful. Thus, he concludes that body plans, once established, will not change, and that any subsequent evolution must occur within an established body plan (Kauffman 1995:201). And indeed, the fossil record does show a curious (from a neo-Darwinian point of view) top-down pattern of appearance, in which higher taxa (and the body plans they represent) appear first, only later to be followed by the multiplication of lower taxa representing variations within those original body designs (Erwin et al. 1987, Lewin 1988, Valentine & Jablonski 2003:518). Further, as Kauffman expects, body plans appear suddenly and persist without significant modification over time.

But here, again, Kauffman begs the most important question, which is: what produces the new Cambrian body plans in the first place? Granted, he invokes "long jump mutations" to explain this, but he identifies no specific self-organizational process that can produce such mutations. Moreover, he concedes a principle that undermines the plausibility of his own proposal. Kauffman acknowledges that mutations that occur early in development are almost inevitably deleterious. Yet developmental biologists know that these are the only kind of mutations that have a realistic chance of producing large-scale evolutionary change--i.e., the big jumps that Kauffman invokes. Though Kauffman repudiates the neo-Darwinian reliance upon random mutations in favor of self-organizing order, in the end, he must invoke the most implausible kind of random mutation in order to provide a self-organizational account of the new Cambrian body plans. Clearly, his model is not sufficient.

Punctuated Equilibrium

Of course, still other causal explanations have been proposed. During the 1970s, the paleontologists Eldredge and Gould (1972) proposed the theory

of evolution by punctuated equilibrium in order to account for a pervasive pattern of "sudden appearance" and "stasis" in the fossil record.

Though advocates of punctuated equilibrium were mainly seeking to describe the fossil record more accurately than earlier gradualist neo-Darwinian models had done, they did also propose a mechanism--known as species selection--by which the large morphological jumps evident in fossil record might have been produced. According to punctuationalists, natural selection functions more as a mechanism for selecting the fittest species rather than the most-fit individual among a species. Accordingly, on this model, morphological change should occur in larger, more discrete intervals than it would given a traditional neo-Darwinian understanding.

Despite its virtues as a descriptive model of the history of life, punctuated equilibrium has been widely criticized for failing to provide a mechanism sufficient to produce the novel form characteristic of higher taxonomic groups. For one thing, critics have noted that the proposed mechanism of punctuated evolutionary change simply lacked the raw material upon which to work. As Valentine and Erwin (1987) note, the fossil record fails to document a large pool of species prior to the Cambrian. Yet the proposed mechanism of species selection requires just such a pool of species upon

which to act. Thus, they conclude that the mechanism of species selection probably does not resolve the problem of the origin of the higher taxonomic groups (p. 96).⁸ Further, punctuated equilibrium has not addressed the more specific and fundamental problem of explaining the origin of the new biological information (whether genetic or epigenetic) necessary to produce novel biological form. Advocates of punctuated equilibrium might assume that the new species (upon which natural selection acts) arise by known microevolutionary processes of speciation (such as founder effect, genetic drift or bottleneck effect) that do not necessarily depend upon mutations to produce adaptive changes. But, in that case, the theory lacks an account of how the specifically higher taxa arise. Species selection will only produce more fit species. On the other hand, if punctuationalists assume that processes of genetic mutation can produce more fundamental morphological changes and variations, then their model becomes subject to the same problems as neo-Darwinism (see above). This dilemma is evident in Gould (2002:710) insofar as his attempts to explain adaptive complexity inevitably employ classical neo-Darwinian modes of explanation.⁹

Structuralism

Another attempt to explain the origin of form has been proposed by the structuralists such as Gerry Webster and Brian Goodwin (1984, 1996). These biologists, drawing on the earlier work of D'Arcy Thompson (1942), view biological form as the result of structural constraints imposed upon matter by morphogenetic rules or laws. For reasons similar to those discussed above, the structuralists have insisted that these generative or morphogenetic rules do not reside in the lower level building materials of organisms, whether in genes or proteins. Webster and Goodwin (1984:510-511) further envisioned morphogenetic rules or laws operating ahistorically, similar to the way in which gravitational or electromagnetic laws operate. For this reason, structuralists see phylogeny as of secondary importance in understanding the origin of the higher taxa, though they think that transformations of form can occur. For structuralists, constraints on the arrangement of matter arise not mainly as the result of historical contingencies--such as environmental changes or genetic mutations--but instead because of the continuous ahistorical operation of fundamental laws of form--laws that organize or inform matter.

While this approach avoids many of the difficulties currently afflicting neo-Darwinism (in particular those associated with its □genocentricity□), critics

(such as Maynard Smith 1986) of structuralism have argued that the structuralist explanation of form lacks specificity. They note that structuralists have been unable to say just where laws of form reside--whether in the universe, or in every possible world, or in organisms as a whole, or in just some part of organisms. Further, according to structuralists, morphogenetic laws are mathematical in character. Yet, structuralists have yet to specify the mathematical formulae that determine biological forms.

Others (Yockey 1992; Polanyi 1967, 1968; Meyer 2003) have questioned whether physical laws could in principle generate the kind of complexity that characterizes biological systems. Structuralists envision the existence of biological laws that produce form in much the same way that physical laws produce form. Yet the forms that physicists regard as manifestations of underlying laws are characterized by large amounts of symmetric or redundant order, by relatively simple patterns such as vortices or gravitational fields or magnetic lines of force. Indeed, physical laws are typically expressed as differential equations (or algorithms) that almost by definition describe recurring phenomena--patterns of compressible
 □order□ not □complexity□ as defined by algorithmic information theory

(Yockey 1992:77-83). Biological forms, by contrast, manifest greater complexity and derive in ontogeny from highly complex initial conditions--i.e., non-redundant sequences of nucleotide bases in the genome and other forms of information expressed in the complex and irregular three-dimensional topography of the organism or the fertilized egg. Thus, the kind of form that physical laws produce is not analogous to biological form--at least not when compared from the standpoint of (algorithmic) complexity. Further, physical laws lack the information content to specify biology systems. As Polyanyi (1967, 1968) and Yockey (1992:290) have shown, the laws of physics and chemistry allow, but do not determine, distinctively biological modes of organization. In other words, living systems are consistent with, but not deducible, from physical-chemical laws (1992:290).

Of course, biological systems do manifest some reoccurring patterns, processes and behaviors. The same type of organism develops repeatedly from similar ontogenetic processes in the same species. Similar processes of cell division reoccur in many organisms. Thus, one might describe certain biological processes as law-governed. Even so, the existence of such biological regularities does not solve the problem of the origin of form and information, since the recurring processes described by such biological

laws (if there be such laws) only occur as the result of preexisting stores of (genetic and/or epigenetic) information and these information-rich initial conditions impose the constraints that produce the recurring behavior in biological systems. (For example, processes of cell division recur with great frequency in organisms, but depend upon information-rich DNA and proteins molecules.) In other words, distinctively biological regularities depend upon preexisting biological information. Thus, appeals to higher-level biological laws presuppose, but do not explain, the origination of the information necessary to morphogenesis.

Thus, structuralism faces a difficult in principle dilemma. On the one hand, physical laws produce very simple redundant patterns that lack the complexity characteristic of biological systems. On the other hand, distinctively biological laws--if there are such laws--depend upon preexisting information-rich structures. In either case, laws are not good candidates for explaining the origination of biological form or the information necessary to produce it.

Cladism: An Artifact of Classification?

Some cladists have advanced another approach to the problem of the origin of form, specifically as it arises in the Cambrian. They have argued that the problem of the origin of the phyla is an artifact of the classification system, and therefore, does not require explanation. Budd and Jensen (2000), for example, argue that the problem of the Cambrian explosion resolves itself if one keeps in mind the cladistic distinction between "stem" and "crown" groups. Since crown groups arise whenever new characters are added to simpler more ancestral stem groups during the evolutionary process, new phyla will inevitably arise once a new stem group has arisen. Thus, for Budd and Jensen what requires explanation is not the crown groups corresponding to the new Cambrian phyla, but the earlier more primitive stem groups that presumably arose deep in the Proterozoic. Yet since these earlier stem groups are by definition less derived, explaining them will be considerably easier than explaining the origin of the Cambrian animals *de novo*. In any case, for Budd and Jensen the explosion of new phyla in the Cambrian does not require explanation. As they put it, "given that the early branching points of major clades is an inevitable result of clade diversification, the alleged phenomenon of the

phyla appearing early and remaining morphologically static is not seen to require particular explanation□ (Budd & Jensen 2000:253).

While superficially plausible, perhaps, Budd and Jensen's attempt to explain away the Cambrian explosion begs crucial questions. Granted, as new characters are added to existing forms, novel morphology and greater morphological disparity will likely result. But what causes new characters to arise? And how does the information necessary to produce new characters originate? Budd and Jensen do not specify. Nor can they say how derived the ancestral forms are likely to have been, and what processes, might have been sufficient to produce them. Instead, they simply assume the sufficiency of known neo-Darwinian mechanisms (Budd & Jensen 2000:288). Yet, as shown above, this assumption is now problematic. In any case, Budd and Jensen do not explain what causes the origination of biological form and information.

Convergence and Teleological Evolution

More recently, Conway Morris (2000, 2003c) has suggested another possible explanation based on the tendency for evolution to converge on the same structural forms during the history of life. Conway Morris cites numerous examples of organisms that possess very similar forms and structures, even though such structures are often built from different material substrates and arise (in ontogeny) by the expression of very different genes. Given the extreme improbability of the same structures arising by random mutation and selection in disparate phylogenies, Conway Morris argues that the pervasiveness of convergent structures suggests that evolution may be in some way "channeled" toward similar functional and/or structural endpoints. Such an end-directed understanding of evolution, he admits, raises the controversial prospect of a teleological or purposive element in the history of life. For this reason, he argues that the phenomenon of convergence has received less attention than it might have otherwise. Nevertheless, he argues that just as physicists have reopened the question of design in their discussions of anthropic fine-tuning, the ubiquity of convergent structures in the history of life has led some biologists (Denton 1998) to consider extending teleological thinking to biology. And, indeed, Conway Morris himself intimates that the evolutionary process might be "underpinned by a purpose" (2000:8, 2003b:511).

Conway Morris, of course, considers this possibility in relation to a very specific aspect of the problem of organismal form, namely, the problem of explaining why the same forms arise repeatedly in so many disparate lines of descent. But this raises a question. Could a similar approach shed explanatory light on the more general causal question that has been addressed in this review? Could the notion of purposive design help provide a more adequate explanation for the origin of organismal form generally? Are there reasons to consider design as an explanation for the origin of the biological information necessary to produce the higher taxa and their corresponding morphological novelty?

The remainder of this review will suggest that there are such reasons. In so doing, it may also help explain why the issue of teleology or design has reemerged within the scientific discussion of biological origins (Denton 1986, 1998; Thaxton et al. 1992; Kenyon & Mills 1996; Behe 1996, 2004; Dembski 1998, 2002, 2004; Conway Morris 2000, 2003a, 2003b, Lonngig 2001; Lonngig & Saedler 2002; Nelson & Wells 2003; Meyer 2003, 2004; Bradley 2004) and why some scientists and philosophers of science have considered teleological explanations for the origin of form and information

despite strong methodological prohibitions against design as a scientific hypothesis (Gillespie 1979, Lenior 1982:4).

First, the possibility of design as an explanation follows logically from a consideration of the deficiencies of neo-Darwinism and other current theories as explanations for some of the more striking "appearances of design" in biological systems. Neo-Darwinists such as Ayala (1994:5), Dawkins (1986:1), Mayr (1982:xi-xii) and Lewontin (1978) have long acknowledged that organisms appear to have been designed. Of course, neo-Darwinists assert that what Ayala (1994:5) calls the "obvious design" of living things is only apparent since the selection/mutation mechanism can explain the origin of complex form and organization in living systems without an appeal to a designing agent. Indeed, neo-Darwinists affirm that mutation and selection--and perhaps other similarly undirected mechanisms--are fully sufficient to explain the appearance of design in biology. Self-organizational theorists and punctuationalists modify this claim, but affirm its essential tenet. Self-organization theorists argue that natural selection acting on self organizing order can explain the complexity of living things--again, without any appeal to design. Punctuationalists

similarly envision natural selection acting on newly arising species with no actual design involved.

And clearly, the neo-Darwinian mechanism does explain many appearances of design, such as the adaptation of organisms to specialized environments that attracted the interest of 19th century biologists. More specifically, known microevolutionary processes appear quite sufficient to account for changes in the size of Galapagos finch beaks that have occurred in response to variations in annual rainfall and available food supplies (Weiner 1994, Grant 1999).

But does neo-Darwinism, or any other fully materialistic model, explain all appearances of design in biology, including the body plans and information that characterize living systems? Arguably, biological forms--such as the structure of a chambered nautilus, the organization of a trilobite, the functional integration of parts in an eye or molecular machine--attract our attention in part because the organized complexity of such systems seems reminiscent of our own designs. Yet, this review has argued that neo-Darwinism does not adequately account for the origin of all appearances of

design, especially if one considers animal body plans, and the information necessary to construct them, as especially striking examples of the appearance of design in living systems. Indeed, Dawkins (1995:11) and Gates (1996:228) have noted that genetic information bears an uncanny resemblance to computer software or machine code. For this reason, the presence of CSI in living organisms, and the discontinuous increases of CSI that occurred during events such as the Cambrian explosion, appears at least suggestive of design.

Does neo-Darwinism or any other purely materialistic model of morphogenesis account for the origin of the genetic and other forms of CSI necessary to produce novel organismal form? If not, as this review has argued, could the emergence of novel information-rich genes, proteins, cell types and body plans have resulted from actual design, rather than a purposeless process that merely mimics the powers of a designing intelligence? The logic of neo-Darwinism, with its specific claim to have accounted for the appearance of design, would itself seem to open the door to this possibility. Indeed, the historical formulation of Darwinism in dialectical opposition to the design hypothesis (Gillespie 1979), coupled with the neo-Darwinism's inability to account for many salient appearances

of design including the emergence of form and information, would seem logically to reopen the possibility of actual (as opposed to apparent) design in the history of life.

A second reason for considering design as an explanation for these phenomena follows from the importance of explanatory power to scientific theory evaluation and from a consideration of the potential explanatory power of the design hypothesis. Studies in the methodology and philosophy of science have shown that many scientific theories, particularly in the historical sciences, are formulated and justified as inferences to the best explanation (Lipton 1991:32-88, Brush 1989:1124-1129, Sober 2000:44). Historical scientists, in particular, assess or test competing hypotheses by evaluating which hypothesis would, if true, provide the best explanation for some set of relevant data (Meyer 1991, 2002; Cleland 2001:987-989, 2002:474-496).¹⁰ Those with greater explanatory power are typically judged to be better, more probably true, theories. Darwin (1896:437) used this method of reasoning in defending his theory of universal common descent. Moreover, contemporary studies on the method of \square inference to the best explanation \square have shown that determining which among a set of competing possible explanations constitutes the best depends upon

judgments about the causal adequacy, or “causal powers,” of competing explanatory entities (Lipton 1991:32-88). In the historical sciences, uniformitarian and/or actualistic (Gould 1965, Simpson 1970, Ruten 1971, Hooykaas 1975) canons of method suggest that judgments about causal adequacy should derive from our present knowledge of cause and effect relationships. For historical scientists, “the present is the key to the past” means that present experience-based knowledge of cause and effect relationships typically guides the assessment of the plausibility of proposed causes of past events.

Yet it is precisely for this reason that current advocates of the design hypothesis want to reconsider design as an explanation for the origin of biological form and information. This review, and much of the literature it has surveyed, suggests that four of the most prominent models for explaining the origin of biological form fail to provide adequate causal explanations for the discontinuous increases of CSI that are required to produce novel morphologies. Yet, we have repeated experience of rational and conscious agents--in particular ourselves--generating or causing increases in complex specified information, both in the form of sequence-

specific lines of code and in the form of hierarchically arranged systems of parts.

In the first place, intelligent human agents--in virtue of their rationality and consciousness--have demonstrated the power to produce information in the form of linear sequence-specific arrangements of characters. Indeed, experience affirms that information of this type routinely arises from the activity of intelligent agents. A computer user who traces the information on a screen back to its source invariably comes to a mind--that of a software engineer or programmer. The information in a book or inscriptions ultimately derives from a writer or scribe--from a mental, rather than a strictly material, cause. Our experience-based knowledge of information-flow confirms that systems with large amounts of specified complexity (especially codes and languages) invariably originate from an intelligent source from a mind or personal agent. As Quastler (1964) put it, the □creation of new information is habitually associated with conscious activity□ (p. 16). Experience teaches this obvious truth.

Further, the highly specified hierarchical arrangements of parts in animal body plans also suggest design, again because of our experience of the kinds of features and systems that designers can and do produce. At every level of the biological hierarchy, organisms require specified and highly improbable arrangements of lower-level constituents in order to maintain their form and function. Genes require specified arrangements of nucleotide bases; proteins require specified arrangements of amino acids; new cell types require specified arrangements of systems of proteins; body plans require specialized arrangements of cell types and organs.

Organisms not only contain information-rich components (such as proteins and genes), but they comprise information-rich arrangements of those components and the systems that comprise them. Yet we know, based on our present experience of cause and effect relationships, that design engineers--possessing purposive intelligence and rationality--have the ability to produce information-rich hierarchies in which both individual modules and the arrangements of those modules exhibit complexity and specificity--information so defined. Individual transistors, resistors, and capacitors exhibit considerable complexity and specificity of design; at a higher level of organization, their specific arrangement within an integrated circuit represents additional information and reflects further design.

Conscious and rational agents have, as part of their powers of purposive intelligence, the capacity to design information-rich parts and to organize those parts into functional information-rich systems and hierarchies.

Further, we know of no other causal entity or process that has this capacity.

Clearly, we have good reason to doubt that mutation and selection, self-organizational processes or laws of nature, can produce the information-rich components, systems, and body plans necessary to explain the origination of morphological novelty such as that which arises in the Cambrian period.

There is a third reason to consider purpose or design as an explanation for the origin of biological form and information: purposive agents have just those necessary powers that natural selection lacks as a condition of its causal adequacy. At several points in the previous analysis, we saw that natural selection lacked the ability to generate novel information precisely because it can only act after new functional CSI has arisen. Natural selection can favor new proteins, and genes, but only after they perform some function. The job of generating new functional genes, proteins and systems of proteins therefore falls entirely to random mutations. Yet without functional criteria to guide a search through the space of possible

sequences, random variation is probabilistically doomed. What is needed is not just a source of variation (i.e., the freedom to search a space of possibilities) or a mode of selection that can operate after the fact of a successful search, but instead a means of selection that (a) operates during a search--before success--and that (b) is guided by information about, or knowledge of, a functional target.

Demonstration of this requirement has come from an unlikely quarter: genetic algorithms. Genetic algorithms are programs that allegedly simulate the creative power of mutation and selection. Dawkins and Koppers, for example, have developed computer programs that putatively simulate the production of genetic information by mutation and natural selection (Dawkins 1986:47-49, Koppers 1987:355-369). Nevertheless, as shown elsewhere (Meyer 1998:127-128, 2003:247-248), these programs only succeed by the illicit expedient of providing the computer with a "target sequence" and then treating relatively greater proximity to future function (i.e., the target sequence), not actual present function, as a selection criterion. As Berlinski (2000) has argued, genetic algorithms need something akin to a "forward looking memory" in order to succeed. Yet such foresighted selection has no analogue in nature. In biology, where

differential survival depends upon maintaining function, selection cannot occur before new functional sequences arise. Natural selection lacks foresight.

What natural selection lacks, intelligent selection--purposive or goal-directed design--provides. Rational agents can arrange both matter and symbols with distant goals in mind. In using language, the human mind routinely ☐ finds ☐ or generates highly improbable linguistic sequences to convey an intended or preconceived idea. In the process of thought, functional objectives precede and constrain the selection of words, sounds and symbols to generate functional (and indeed meaningful) sequences from among a vast ensemble of meaningless alternative combinations of sound or symbol (Denton 1986:309-311). Similarly, the construction of complex technological objects and products, such as bridges, circuit boards, engines and software, result from the application of goal-directed constraints (Polanyi 1967, 1968). Indeed, in all functionally integrated complex systems where the cause is known by experience or observation, design engineers or other intelligent agents applied boundary constraints to limit possibilities in order to produce improbable forms, sequences or structures. Rational agents have repeatedly demonstrated the capacity to

constrain the possible to actualize improbable but initially unrealized future functions. Repeated experience affirms that intelligent agents (minds) uniquely possess such causal powers.

Analysis of the problem of the origin of biological information, therefore, exposes a deficiency in the causal powers of natural selection that corresponds precisely to powers that agents are uniquely known to possess. Intelligent agents have foresight. Such agents can select functional goals before they exist. They can devise or select material means to accomplish those ends from among an array of possibilities and then actualize those goals in accord with a preconceived design plan or set of functional requirements. Rational agents can constrain combinatorial space with distant outcomes in mind. The causal powers that natural selection lacks--almost by definition--are associated with the attributes of consciousness and rationality--with purposive intelligence. Thus, by invoking design to explain the origin of new biological information, contemporary design theorists are not positing an arbitrary explanatory element unmotivated by a consideration of the evidence. Instead, they are positing an entity possessing precisely the attributes and causal powers

that the phenomenon in question requires as a condition of its production and explanation.

Conclusion

An experience-based analysis of the causal powers of various explanatory hypotheses suggests purposive or intelligent design as a causally adequate--and perhaps the most causally adequate--explanation for the origin of the complex specified information required to build the Cambrian animals and the novel forms they represent. For this reason, recent scientific interest in the design hypothesis is unlikely to abate as biologists continue to wrestle with the problem of the origination of biological form and the higher taxa.

DEBUNKING COMMON PREJUDICE AGAINST RELIGIOUS COUNTRIES

Dawkins seems to attribute all the negative and evil things to religion. However there is a strong argument that these things are not unique to religion itself, but the common conceptual dominator is humanity. This is summarised well by Keith Ward, the former Regius Professor of Divinity at the University of Oxford, he writes,

□ It is very difficult to think of any organised human activity that could not be corrupted □ The lesson is that anti-religious corruptions and religious corruptions are both possible. There is no magic system or belief, not even belief in liberal democracy, which can be guaranteed to prevent it. □

There are many common misconceptions about religion that are often taken as unquestioned facts, such as the idea that religious people are inherently anti-science, that a literal reading of holy texts is the "true" religious stance, that faith is incompatible with reason, and that all religions claim to possess sole and absolute truth.

While all these ideas are true for a minority of the population, they do not describe normative religious beliefs and practices for the majority of

believers. It is understandable that these misconceptions persist, though, because they come from the loudest voices on the extremes, and like other polarizing positions in politics and culture are simplistic ideas that promote easy "us vs. them" thinking. But there is one common misconception about religion that is voiced often and consistently as an obvious truth -- often by educated, thoughtful people --that is just not factually true: The idea that religion has been the cause of most wars.

In his hilarious analysis of The 10 Commandments, George Carlin said to loud applause, "More people have been killed in the name of God than for any other reason," and many take this idea as an historical fact. When I hear someone state that religion has caused most wars, though, I will often and ask the person to name these wars. The response is typically, "Come on! The Crusades, The Inquisition, Northern Ireland, the Middle East, 9/11. Need I name more?"

Well, yes, we do need to name more, because while clearly there were wars that had religion as the prime cause, an objective look at history reveals that those killed in the name of religion have, in fact, been a tiny

fraction in the bloody history of human conflict. In their recently published book, "Encyclopedia of Wars," authors Charles Phillips and Alan Axelrod document the history of recorded warfare, and from their list of 1763 wars only 123 have been classified to involve a religious cause, accounting for less than 7 percent of all wars and less than 2 percent of all people killed in warfare. While, for example, it is estimated that approximately one to three million people were tragically killed in the Crusades, and perhaps 3,000 in the Inquisition, nearly 35 million soldiers and civilians died in the senseless, and secular, slaughter of World War 1 alone.

History simply does not support the hypothesis that religion is the major cause of conflict. The wars of the ancient world were rarely, if ever, based on religion. These wars were for territorial conquest, to control borders, secure trade routes, or respond to an internal challenge to political authority. In fact, the ancient conquerors, whether Egyptian, Babylonian, Persian, Greek, or Roman, openly welcomed the religious beliefs of those they conquered, and often added the new gods to their own pantheon.

Medieval and Renaissance wars were also typically about control and wealth as city-states vied for power, often with the support, but rarely instigation, of the Church. And the Mongol Asian rampage, which is thought to have killed nearly 30 million people, had no religious component whatsoever.

Most modern wars, including the Napoleonic Campaign, the American Revolution, the French Revolution, the American Civil War, World War I, the Russia Revolution, World War II, and the conflicts in Korea and Vietnam, were not religious in nature or cause. While religious groups have been specifically targeted (most notably in World War II), to claim that religion was the cause is to blame the victim and to misunderstand the perpetrators' motives, which were nationalistic and ethnic, not religious.

Similarly, the vast numbers of genocides (those killed in ethnic cleanses, purges, etc. that are not connected to a declared war) are not based on religion. It's estimated that over 160 million civilians were killed in genocides in the 20th century alone, with nearly 100 million killed by the Communist states of USSR and China. While some claim that Communism

itself is a "state religion" -- because it has an absolute dictator whose word is law and a "holy book" of unchallenged rules -- such a claim simply equates "religion" with the human desire for power, conformance, and control, making any distinctions with other human institutions meaningless.

To illustrate this let me use the outdated cliché of "religions are the cause of war and conflict" and show how war and conflict are not unique to religions. In the relatively short history of secularism the following massacres have committed in the name of non-religious ideologies such as communism, nationalism and social-Darwinism:

- 70,000,000 under chairman Mao
- 20,000,000 under Stalin
- 2,000,000 no longer exist because of Pol Pot
- 700,000 innocent Iraqi's in the current occupation
- 500,000 Iraqi children in the 10 year sanctions

So it can be clearly seen above that war and conflict are not religious monopolies, rather they are human phenomena and not unique to religion.

As Professor Stephen L. Carter argues in "Civility":

"[T]he statement that wars have been fought in the name of God is a non sequitur. As the theologian Walter Wink once pointed out, more people have died in the twentieth century's secular wars than in the preceding fifty centuries of fighting combined. No religious war in history, not all the religious wars of history added together, did as much damage as this century's wars of nationalism and ideology."

RELIGION AND RELIGIOUS COUNTRIES COMPARED WITH ATHEIST AND NONRELIGIOUS COUNTRIES

Thaxton and Meyer close their article with a purported contrast between the way human rights are honored in the United States and in the Soviet

Union; they are inalienable here and dispensable there, they claim. This difference, they argue, is a direct result of a difference between a government

based upon Christian theology and one grounded in scientific materialism.

They write, "Soviet indifference to human rights is reasoned correctly from an erroneous perception of man called Marxism - a materialist perception [sic] that Karl Marx himself held to be scientific" (Thaxton and Meyer 1987).

On the other hand, they believe that America is built on the idea that "dignity

is built into man by his Creator" (Thaxton and Meyer 1987). They worry, however, that the acceptance of evolution and naturalism will undermine these values here and place us in the same position as the Soviets.

Debunking the atheist claim: The Less Religious and Atheistic are more intelligent

are atheists smarter, atheist intelligence, atheists more intelligent, atheists smarter, less religious more intelligent

The fools (atheists) have come up with more propaganda, that the less religious and atheistic are more intelligent.

There is nothing more disgusting to an atheist than allowing criticism and scrutiny of beliefs that they personally agree with. This is because atheists are staunch anti-science fanatics and strongly strongly oppose allowing all things to be subject to criticism and scrutiny (criticism and scrutiny is one of the main principles in science).

Since atheists are extremely gullible people who do not question claims that they personal agree with (since they are anti-science) I will do it for them.

This argument atheists use is a clear example of how correlation is not causation.

Since correlation is not causation this makes it extremely easy to distort statistics and come up with all types of propaganda. You can find all types of coincidences that occur and falsely link them as the cause since correlation is not causation.

Now it's time for me to debunk this claim.

Richard Lynn (a great fool/atheist) claims that more religious countries are less intelligent than less religious countries.

The trick he uses here is comparing the average IQ of the religious vs. non-religious in different ethnic groups.

If we use the ethnic group as a control variable and look at the average IQs of religious vs. non-religious countries within the same ethnic group we see

that the IQ difference is very small, that the least religious countries in Europe have lower average IQs and that many religious European countries have high average IQs.

Religious countries in Europe with high average IQs (according to Lynn's data):

- Switzerland (average IQ 101)
- Austria (average IQ 102)

Czech Republic and Estonia are the least religious countries in Europe:

- Estonia (average IQ 97)
- Czech Republic (average IQ 97)

Estonia has 0 Nobel Prizes (not even one), Switzerland (one of the most religious countries in Europe) has the most scientific Nobel Prizes per capita (among nations with population size above 1 million).

If there was an actual causal link between religiosity and IQ we would expect the least religious countries within the same ethnic group to have higher average IQs, not lower average IQs.

Richard Lynn and other liberal atheists use this exact same trick when claiming that conservative states are less intelligent than liberal states. The keyword here is states.

Most conservative states have more non-whites than liberal states and most liberal states have low non-white population sizes. So let's use the ethnic group again as a control variable.

Average IQs of conservative states with low non-white populations:

- Montana (average IQ 103.4)
- North Dakota (average IQ 103.8)

Average IQs of liberal states with high non-white populations:

- California (average IQ 95.5)

- Hawaii (average IQ 95.6)

Once again we see that there is no causal link between political affiliation and average IQ within the same ethnic group. So conservative states like Montana and North Dakota have higher average IQs than all European countries (from Lynn's data)!

Then we have another fool Helmuth Nyborg who claims that White atheists have higher average IQs than White religious people. He claims that White atheists score around 6 points higher than White Dogmatics.

But I read Nyborg's paper

(<http://www.econ.ku.dk/mehr/calendar/seminars/mehr04102012/Nyborg.pdf>

/) and found that it's just propaganda filled with errors.

Now to destroy Nyborg's claim.

The White Dogmatics scored an average IQ of 105 (which would already be higher than almost every country in the entire world) and White atheists scored an average IQ of 111. With an SD of 13 and average IQ of 105 vs. 111 would be insignificant, and with the sampling error factored (which would probably be around 4-6 IQ points) it's really insignificant.

Another problem is that Anglicans and Jews scored higher than atheists in Nyborg's study (which Nyborg conveniently doesn't mention), see table 6 (Anglicans average IQ 113, Jews average IQ 112).

Another other problem is that Nyborg obtains an average IQ of 111 from a sample of just 39 White atheists. With a sample of just 39 people it would only take a few high IQ people in the group for the average to be at 111. Since it's a small sample size we know that the average IQ is probably inaccurate. For the Dogmatics he uses a large sample size of over a thousand people. Gaining an average IQ of 111 with a sample size of over a thousand people would require a much higher count of high IQ people than in a sample of just 39 people. We could use the same trick and

choose 39 people from the Disciples of Christ group and gain an average IQ of 120 if we wanted!

Another problem is household income not correlating with an average IQ of 111 (from the sample of just 39 atheists). From table 8 (in Nyborg's paper) atheists rank 12th in household income which would correlate better with an average IQ of 104-106. Anglicans and Jews rank 1st and 2nd in household income which correlates well with their high average IQ and other groups also correlate well with the household income. Lots of Dogmatic groups have higher household incomes than atheists. The household income was gained from a sample of over 87,000 atheists (not 39 people). Since the household income doesn't correlate with the supposedly high atheist average IQ (gained from just 39 people) this clearly tells us that the average IQ of 111 gained from a sample of just 39 people must be completely wrong. Since atheists rank very low (12th) when it comes to household income this means that either atheists have much lower average IQs than the sample of 39 people indicates or that household income and average IQ are not causally linked.

In Conclusion:

- This argument that atheists use is a clear example of how it's easy to distort statistics since correlation is not causation
- Based on the data from atheists, IQ differences are very small between different groups within the same ethnic group regardless of religion or political affiliation
- The main causal link between high IQ and low IQ is the ethnic group (based on the data from liberal atheists)
- In the end all atheists have are tricks
- Nothing really fits in as perfectly together as does liberal atheism, White Nationalism, and Nazism

The Multiple Universe Theory

A number of old time (e.g. Antiphon and Parmenides) and modern philosophers (e.g. McTaggart and Julian Barbour) have hypothesized that, time is not a reality but an illusion. This means that □time is not a continuum as it is perceived□ and □everything which has happened, is happening and will happen, is happening in a moment□.

Also, according to □string theory□ an infinite number of different versions of our universe (parallel universes including even those with different law of physics) compose the concept of reality. Meaning that there are myriad number of universes parallel to ours in which our souls are experiencing universes with different levels of similarity to ours (calculated to be 10 to the power of 500 parallel universes).

Unproven theories cannot "prove" or "disprove" anything. Majority of athiests dont accept a soul or a next life, let alone parallel universes. This is labeled by athiests as being in the realm of so-called "philosophy." As a matter of a fact it isn't much far away from just declaring Belief in God. Because attempting to convince oneself that there must be trillions upon trillions of universes out there and therefore thats how we can have one so flawless like ours. Well, that would make scientific theory entirely more

harder to believe in. As a matter of fact, majority of scientists, religious or not, do not support this theory or anything having to do with it. They quote on quote say "It's a poor excuse for not having a theory " in response to the difficult proofs of Intelligent Design and Creator theories.

For example, if you found a poem made by someone like William Shakespeare and you didn't know how wrote it. The Multiple universe theory would for example say that there must be millions of monkey out there somewhere unseen and undisturbed typing at typewriters or computers somewhere and thus the works of such poetry could exist without an intelligent creator. This of course is not normal human logical thinking. As the old saying goes, " if it looks like a duck, talks like a duck, walks like a duck, eats like a duck, flies like a duck and ect, It's a duck. This is a common phrase simply meaning, something is probably exactly what it seems to be and we should trust our judgement about it, instead of wasting our time trying to find new interpretations to things or not accepting things that are perfectly credible and not disproven.

Skeptics have tried a variety of techniques to avoid such a simple conclusion of a Creator and Designer. One Embodied Mind separate from time and creation who is self-subsisting and Eternal, not dying or being born, or being the result of a cause. But Being the Causer of the Big Bang and all in Existence. There has to be one and one noncaused Cause in the Beginning. One that would have to be a Designer. One who Created the World as we know it from nothing. And has been proven to be Created from nothing no matter the scientific theory is. This of course would be considered nothing but a miracle but in our world, nothing comes from nothing. But we exist don't we? So, there was indeed a miracle that happened, many of them as we now know as a matter of fact. But the question to athiests primarily becomes.. .Well how likely are we to come this far into existance by chance?

In 1927, according to US News and World Report (July 20, 1998, page 46) George Lemaitre argued for the view that the universe was expanding from a single place. The article states "Most researchers scoffed at Lemaitre's concept, partly because they worried that it represented an attempt to grant credence to a theological notion of a discrete moment of Genesis." Denial

has continued to be a tool of the skeptic, even after evidence has shown the validity of the fact of the beginning and a cause.

Most recently the discovery that the universe seems to be accelerating in its expansion, has put the final nail in the coffin of the oscillating universe theory (U.S. News & World Report, July 20, 1998, pages 45-52). This theory had been used by skeptics to avoid accepting the idea that the universe had a beginning. The idea was that the universe expanded and then stopped and pulled back, collapsing to a single point from which it expanded again--going in and out, in an eternal cycle. There had been many problems with the theory, but the fact that the cosmos is accelerating puts an end to this theory as a possibility. If everything is accelerating away from everything else, there is no possibility that the cosmos could come to a stop in its expansion and be pulled back to a single point.

To find an alternative to replace the oscillating universe theory (an explanation of why one should not believe there was a beginning that was caused) a theory called The Multiple Universe Theory has been proposed.

There are several versions of this idea, but a commonly expressed one goes like this.

Deep in the past, some unknowable event triggered the first foundations of a multiuniverse. Chance reigned, and many heavens were born with physical laws adverse to life. They collapsed back on themselves or diffused into vapor and were never heard from again. But those universes that were born with physical laws familiar to us were also the ones able to make black holes: That allowed them to trigger "daughter" universes. Over time, a fantastically large and complex multiverse resulted with most parts of the cosmos having physical laws that allow life--natural selection functioning on a cosmic scale (Dr. Lee Smolin, Pennsylvania State University).

The multiuniverse theory supposes that black holes spawn universes in other dimensions. There, universes would inflate in a process like the big bang. Multiuniverse theory makes the cosmos so huge and interactions between various daughter universes so frequent that an "eternal inflation" is proposed. Since the daughter universes are not coming from a physical

process in their own dimension, they are coming from nothing. The process can never end because you can- not run out of nothing.

Wading through the various proposals like these, one cannot help but wonder if this whole discussion is not more fantasy than scientific theory.

There are numerous reasons to question such an approach:

All of this is based on numerous untested ideas. False vacuums are proposed as mechanisms involved in the process, but these are highly speculative. Empty space is assumed to have energy associated with it.

The assumption that other physical universes exist is totally void of any evidence.

All proposals in this area use terms like Smolin's first sentence: "Some unknowable event triggered." This is not a falsifiable statement. There is no way to test it, so it is a matter of faith.

Chance is believed to be the driving force in the process. Many reputable scientists find such a proposal untenable. Allan Sandage, one of the world's leading astronomers, has stated that all of this has made him a

believer in God, "willing to accept that creation could only be explained as a miracle."

Intelligent Design

The existence of a universe that permits human life is due to conditions that must have been fined-tuned to a degree that is beyond comprehension.

Take the following examples into consideration:

□ The Strength of Gravity & the Atomic Weak Force: Physicist P. C. W.

Davies concludes that a small change in the strength of gravity or of the atomic weak force would have prevented a universe that permits our existence. P. C. W. Davies argues that this small change is as small as one part in 10^{100} .

□ Volume of the phase space of possible universes: Roger Penrose of Oxford University explains that the creator would have to aim for a very tiny volume of the □phase space of possible universes□ to create a universe that resembles our own. This is quite technical science, but we should ask the question: how tiny is this volume? According to Penrose the volume would be $1/10$ to the power of X which is 10^{123} . The precision required to produce a universe that resembles our own is much greater than the precision that would be required to hit one proton if the universe were a dartboard!

In light of the above, there are only three possible explanations for the presence of the above fine tuning of the universe:

1. Physical necessity;
2. Chance;
3. Design.

Why it cannot be Physical Necessity

This option is irrational. There is just no physical reason why these constants and quantities should have the values they do. As P. C. W. Davies explains:

□ Even if the laws of physics were unique, it doesn't follow that the physical universe itself is unique □ the laws of physics must be augmented by cosmic initial conditions □ there is nothing in present ideas about □ laws of initial conditions □ remotely to suggest that their consistency with the laws of physics would imply uniqueness. Far from it □ it seems, then, that the physical universe does not have to be the way it is: it could have been otherwise. □

Additionally if anyone was to take the view that the fine-tuning of the universe to permit human life is due to physical necessity, it would imply that it would be impossible to have a universe not fit for life! However physicists maintain that the universe in which we live didn't have to be the way that it is, and there could have been many other universes that did not permit human life.

Why it cannot be Chance

Some people who do not understand the impossibility of the universe coming into being by chance exclaim, "It could have happened by chance!" However would they say chance explains how an elephant was sleeping in their garage overnight? Or how a 747 ended up parked in their garden? Even after their irrational perspective is highlighted, they still hold on to the theory that the universe can exist due to chance. In response to this I would argue that it is not just about chance but something the theorists such as William Dembski call "specified probability."

Specified probability is a probability that also conforms to an independent pattern. To illustrate this, imagine you have a monkey in a room for twenty-four hours, typing away on your laptop. In the morning you enter the room and you see, "To be or not to be!" The monkey has miraculously written out a part of a Shakespearian play! What you may have expected is random words such as "house," "car," and "apple." However, in this case not only have you seen the improbability of typing English words

but they also conform to the independent pattern of English grammar! To accept this is just the result of blind chance would be irrational and counter discourse, as anyone can claim anything from this perspective. To put this in to context, British mathematicians have calculated that if a monkey did type on a laptop at every possible moment, it would take 28 Billion years (!!!) to produce "To be or not to be". In conclusion, accepting the chance hypothesis is tantamount to rejecting the existence of our own universe!

Since premises one and two are true, it follows that supernatural design is the most reasonable explanation for the fine-tuning of the universe to permit human life.

Statement #3: The temptation is a false one because the designer hypothesis immediately raises the larger problem of who designed the designer.

The above statement, which is a contention to the design argument is flawed for two main reasons. Firstly, anyone with a basic understanding of

the philosophy of science will conclude that in the inference to the best explanation, the best explanation does not require an explanation.

Secondly,

Statement #4: The most ingenious and powerful explanation is Darwinism evolution by natural selection and we don't have an equivalent explanation for physics. This statement is irrelevant due to the following reasons:

1. Evolution does not have its foot in the door;
2. Evolution is based upon incalculable probabilities;
3. Evolution is impossible because we have not spent enough time on Earth yet.

Let me expand upon these points.

1. Evolution does not have its foot in the door

With regards to the existence of God, evolution does not even have its foot in the door; it's billions years away. The fine-tuning argument mentioned above refers to the initial conditions of the universe and various constants that pre-date any evolutionary process. Simply put, evolution has no say.

2. Evolution is based upon incalculable probabilities

The odds against assembling the human genome spontaneously are incalculable. The probability of assembling the genome is between 4^{-180} to $4^{-110,000}$ and 4^{-360} to $4^{-110,000}$. These numbers give some feel for the unlikelihood of the species *Homo sapiens*. And if anyone were to accept evolution by chance, they would have to believe in a miracle as these numbers are so high! Therefore evolution itself would prove the existence of God!

3. Evolution is impossible because we have not had enough time on Earth yet

According to John D. Barrow and Frank J. Tipler, the odds of assembling a single gene are between 4×10^{180} to 4×10^{360} . The implications of this are that there simply has not been enough time since the formation of the earth to try a number of nucleotide base combinations that can even remotely compare to these numbers!

Statement #5: We should not give up the hope of a better explanation arising in physics, something as powerful as Darwinism is for biology.

Dawkins basically says that since there is a naturalistic explanation for the apparent design in species and we do not have a similar explanation for physics, we should just wait. Does this not sound like blind faith to you?

The statement presumes scientism to be the only way of establishing facts or sound conclusions. Why else would he want to wait for a naturalistic explanation? Dawkins' presumption that scientism is the only way to establish facts is not true because:

scientism, which is the view that we should believe only what can be proven scientifically, is self-defeating. Scientism claims that a proposition is not true if it cannot be scientifically proven. However, the above claim itself cannot be scientifically proven. Therefore, according to this claim, the claim itself is not true, hence scientism defeats itself.

scientism cannot prove necessary truths like mathematics and logic. For example, "if p implies q , and p , then q " and " $3 + 3 = 6$ " are necessary truths and not merely empirical generalisations. In fact, scientism requires these necessary truths, but it cannot prove them, and any attempt to do so would be tantamount to arguing in a circle.

scientism is limited in its scope as it cannot address political or moral realities. Concerning morality, scientism can only provide "well-being" as a yardstick for moral truths. However, rapists, liars, and thieves could all have "well-being" due to their actions, therefore the moral landscape, as defined by science, is occupied by good and bad people, and from this perspective morality has no meaning.

It can be seen from the above that Dawkins' central argument fails and is an embarrassment to the scientific community, as atheist Philosopher Michael Ruse explains,

□unlike the new atheists, I take scholarship seriously. I have written that The God Delusion made me ashamed to be an atheist and I meant it. Trying to understand how God could need no cause, Christians claim that God exists necessarily. I have taken the effort to try to understand what that means. Dawkins and company are ignorant of such claims and positively contemptuous of those who even try to understand them, let alone believe them. Thus, like a first-year undergraduate, he can happily go around asking loudly, □What caused God?□ as though he had made some momentous philosophical discovery.□

Responding to what Philosophers consider his best argument

According to Philosopher and lecturer at Yale University, Gregory E. Granssle, Dawkins' strongest argument can be found on page 55:

□ A universe with a creative superintendent would be a very different kind of universe from one without. □

Dawkins □ argument can be summarised in the following way:

1. A universe created by God would be different than the one created by nature;
2. The universe we live in fits better to a universe created by nature;
3. Therefore the universe we live in is most likely to have been created by nature.

I would argue that Dawkins □ argument couldn □ t be any further away from the truth; this is because the universe that we live in actually makes more sense being created by God for the following reasons.

1. The universe is ordered and open to rational analysis

If God did not exist, the universe would not display the order it does, and it would not be finely-tuned to permit human life. Professor Roger Penrose states, "There is a certain sense in which I would say the universe has a purpose. It's not there just somehow by chance—I don't think that's a very fruitful or helpful way of looking at the universe."

Additionally, the very fact that we can observe and perform rational analysis on the patterns we perceive in the universe makes more sense if God did exist, because in a naturalistic universe things would be expected to be more chaotic. This does not mean a universe without a God could not be ordered; however it is more likely that God would create an ordered universe, and since the universe we live in is ordered it makes sense that God's existence fits well with our universe

2. The universe contains conscious and aware beings

A universe that contains consciousness and awareness makes sense with the existence of God. A universe without a God would be very different to the one we are living in. Explanation

Human beings experience things all the time. This article you are reading is an experience; even talking about your experience is an experience.

However the ultimate reality that we know from any experience is the one who experiences it – in other words ourselves. When we realise that there is a first-person, an “I”, “me” or “mine”, we come to face a profound mystery. The Philosopher Roy Abraham Varghese puts it nicely when he wrote, “To reverse Descartes, “I am, therefore I think” – Who is this “I”? “Where” is it? How did it come to be? Your self is not just something physical.”

The self is not a physical thing; it is not contained in any cell or biological structure. The most unchallenged and intuitive reality is that we are all aware, but we cannot describe or explain what this awareness is. One thing that we can be sure of is that the self cannot be explained biologically or chemically. The main reason for this is that science does not discover the self; it is actually the other way round. For science to try and explain the truth of the self would be tantamount to arguing in a circle! Even scientists recognise this; the physicist Gerald Schroeder points out that there is no real difference between a heap of sand and the brain of an Einstein. The

advocates of a physical explanation for the self end up in a muddle as they require answers to even bigger questions, such as □How can certain bits of matter suddenly create a new reality that has no resemblance to matter?□So if the self cannot be explained physically then the next question must be asked: □How did it come to be?□ The history of the universe indicates that consciousness spontaneously arose, and language emerged without any evolutionary forerunner. So where did it come from? Even the neo-atheists have failed to come to terms with the nature of the self and its source, because no physical explanation is coherent enough to be convincing. Even Richard Dawkins almost admits defeat concerning the self and consciousness; he states, □We don□t know. We don□t understand it.□

The best explanation for the nature and source of the self is that it came from a source that is thinking, aware and conscious. How else can the self, which is an entity with a capacity to reflect and experience, manifest itself? It cannot have come from unconscious matter incapable to experience and ponder. Simply put, matter cannot produce concepts and perceptions, therefore we can conclude that the self cannot have a material basis but must have come from a living source that transcends the material world;

and this is best explained by God. No other answer provides an adequate explanation for this phenomenon.

3. The universe contains objective morality

We all believe that killing 6 million Jews during World War II was morally wrong, however not only do we believe it was morally wrong we believe it was objectively morally wrong. What I mean by objective is that if the Nazis had successfully taken over Europe and brainwashed us to believe that it was ok to commit genocide, it would still be objectively morally wrong regardless of human experience. However since our universe contains objective morality then it can only make sense with God's existence, because God is required as rational basis for objective morality. Without God morality is subjective, because God is the only conceptual anchor that transcends human subjectivity. So the universe with objective morality makes no sense without God. In this light the Muslim or theist may argue:

1. If God does not exist, then objective moral values do not exist;
2. The universe with objective moral values does exist;

3. Therefore, God exists.Explaining the key premise

The question about objective good or bad, in other words objective morality, has been discussed by various moral philosophers. Many have concluded that there is no objective morality without God, for instance the late J. L. Mackie in his book ☐Ethics☐ states that there are no objective moral values. Humanist philosopher Paul Kurtz aptly puts it as,

☐The central question about moral and ethical principles concerns this ontological foundation. If they are neither derived from God nor anchored in some transcendent ground, are they purely ephemeral?☐

Paul Kurtz is right; God is the only conceptual anchor that transcends human subjectivity, so without God there is no rational basis for objective morality. To explain this further let us discuss alternative conceptual foundations for morality.In God☐s absence, there are only two alternative foundations:

1. Social pressure

2. Evolution

Both social pressures and evolution provide no objective basis for morality as they both claim that our morality is contingent on changes: biological and social. Therefore morality cannot be binding and true regardless of who believes in them. Therefore without God, there is no objective basis for morality. God as a concept is not subjective, therefore having God as the basis for morality makes them binding and objective, because God transcends human subjectivity. The following statement by Richard Taylor, an eminent ethicist, correctly concludes,

□ Contemporary writers in ethics, who blithely discourse upon moral right and wrong and moral obligation without any reference to religion, are really just weaving intellectual webs from thin air; which amounts to saying that they discourse without meaning. □

Since the universe contains objective morality, and Gods existence is necessary as a conceptual foundation for objective morals, then the universe we live in needs God.

Disproving evolution and natural selection

Things to consider:

"I may be permitted to say, as some excuse, that I had two distinct objects in view; firstly, to show that species had not been separately created, and secondly, that natural selection had been the chief agent of change...

Hence, if I have erred in giving to natural selection great power, I have at least ... done good service in aiding to overthrow the dogma of separate creations." Charles R. Darwin, "The Descent of Man," bound in one volume with "The Origin of Species: The Preservation of Favored Races in the

Struggle for Life," [1871], Modern Library, Random House: New York, nd., pp.441-442

"If numerous species, belonging to the same genera or families, have really started into life all at once, the fact would be fatal to the theory of descent with slow modification through natural selection." Charles Darwin, "The Origin of Species: The Preservation of Favored Races in the Struggle for Life' A Facsimile of the First Edition, Harvard University Press, 1964, p. 302

Breaking this quote up:

"'Survival of the fittest' and 'natural selection'. No matter what phraseology one generates, the basic fact remains the same: any physical change of any size, shape or form is strictly the result of purposeful alignment of billions of nucleotides (in the DNA).

Nature or species do not have the capacity to rearrange them nor to add to them.

The only way we know for a DNA to be altered is through a meaningful intervention from an outside source of intelligence - one who know what it is doing, such as our genetic engineers are now performing in the laboratories" I. L. Cohen, Officer of the Archaeological Institute of America. Member New York Academy of Sciences. "Darwin Was Wrong - A Study in Probabilities" New Research Publications, Inc., p. 209

"No one has yet witnessed, in the fossil record, in real life, or in computer life, the exact transitional moments when natural selection pumps its complexity up to the next level. There is a suspicious barrier in the vicinity of species that either holds back this critical change or removes it from our sight." Kevin Kelly, Executive Editor of Wired Magazine, "Out of Control: The New Biology of Machines," [1994], Fourth Estate: London, 1995, reprint, p.475

"But how do you get from nothing to such an elaborate something if evolution must proceed through a long sequence of intermediate stages, each favored by natural selection? You can't fly with 2% of a wing ... How, in other words, can natural selection explain these incipient stages of

structures that can only be used (as we now observe them) in much more elaborated forms? ... one point stands high above the rest: the dilemma of incipient stages. Mivart identified this problem as primary and it remains so today." Stephen Jay Gould, Prof of Geology and Paleontology, Harvard University

"The non-utility of specific characters is the point on which Natural Selection as a theory of the origin of species is believed to fail" Professor D.H. Scott, Extinct Plants, p. 22

"No recognized case of Natural Selection really selecting has been observed" Professor Vernon Kellogg, Evolution, p.91

It is easy enough to make up stories, of how one form gave rise to another, and to find reasons why the stages should be favored by natural selection. But such stories are not part of science, for there is no way of putting them to the test." Luther D Sutherland, 'Darwin's Enigma', Master Books 1988, p7,8, 89

"In other words, it's Natural Selection or a Creator. There is no middle ground. This is why prominent Darwinists like G. G. Simpson and Stephen Jay Gould, who are not secretive about their hostility to religion, cling so vehemently to natural selection. To do otherwise would be to admit the probability that there is design in nature□and hence a Designer." G. S. Johnston, *The Genesis Controversy*, Crisis, p. 17, May 1989

Is intelligent design theory incompatible with evolution?

It depends on what one means by the word "evolution." If one simply means "change over time," or even that living things are related by common ancestry, then there is no inherent conflict between evolutionary theory and intelligent design theory. However, the dominant theory of evolution today is neo-Darwinism, which contends that evolution is driven by natural selection acting on random mutations, an unpredictable and purposeless process that "has no discernable direction or goal, including survival of a species." (NABT Statement on Teaching Evolution). It is this specific claim made by neo-Darwinism that intelligent design theory directly challenges.

Disproving Darwinism and Evolution

On the 200th anniversary of Darwin's birth, the magazine Nature carried an article in the hope of restoring his outdated theory to the agenda and resuscitating it after its demolition this century. The Turkish scientific journal Cumhuriyet Bilim Teknik also carried the Nature report under the title "Fifteen Proofs That Prove Darwin Right." Its aim was the same as that of the Darwinist journal Nature; to restore the theory of evolution, a theory that has been demolished and rejected by 80% of the world, to its former good name.

But no matter what they, Darwinists will be unable to alter the fact that Darwinism is dead and buried. There is literally NOBODY LEFT IN THE WORLD TO SUPPORT EVOLUTION.

THE 100 MILLION FOSSILS THAT DARWINISTS KEPT HIDDEN AWAY HAVE BEEN BROUGHT OUT INTO THE DAYLIGHT. AND THERE IS NOT A SINGLE TRANSITIONAL FORM AMONG THEM! The proponents of Darwinism have suddenly realized that Darwin's prophecy he made 150 years ago has come true. Because 150 years ago, in his book *The Origin of Species*, Darwin wrote:

... Why, if species have descended from other species by insensibly fine gradations, do we not everywhere see innumerable transitional forms? Why is not all nature in confusion instead of the species being, as we see them, well defined?□ But, as by this theory innumerable transitional forms must have existed, why do we not find them embedded in countless numbers in the crust of the earth?□ Why then is not every geological formation and every stratum full of such intermediate links? Geology assuredly does not reveal any such finely graduated organic chain; and this, perhaps, is the most obvious and gravest objection which can be urged against my theory. (Charles Darwin, *The Origin of Species*, pp. 172, 280)

Darwin's words have been confirmed □ NOT ONE SINGLE TRANSITIONAL FORM HAS BEEN UNEARTHED. THAT FACT IS SUFFICIENT TO REPUDIATE DARWINISM all by itself.

The full detail of all the extraordinary complexity in the molecular structures in living things then emerged, and it was realized that it is impossible for even a single protein to form by chance and that a single DNA helix contains an equivalent amount of information to 1 million encyclopedia pages. In other words, it has emerged that Darwinists can offer no explanation or evidence for the origin of species or the origin of life.

The whole world is now aware of the Darwinist deceit. And Darwinists realize it. The typical evolutionary propaganda that recently appeared in Cumhuriyet Bilim Teknik also serves, on close examination, no other purpose than to announce the collapse of Darwin's theory. That is why we are examining the 15 claims made in the journal under the heading 15 CLAIMS THAT DISPROVE DARWIN;

1. The False Claim of Whales' Terrestrial Ancestor:

The subject of the fictitious forebear of whales is a terrible embarrassment for Darwinists. Contemporary Darwinists have long tried to eliminate that embarrassment by concealing the claim that "bears fishing on the sea shore gradually turned into whales." But their own suggestions were little different to that of Darwin's. Darwinists despairingly attempted to portray the ear and tooth structure of a living thing no bigger than a raccoon as evidence of this impossible and fictitious transition. The fact is that this is a classic Darwinist tactic. By pointing to anatomical similarities between different life forms, Darwinists attempted to establish a relationship between a totally unconnected land dweller and a marine mammal. But they were unable even to mention the evidence that would confirm this mythical transition, in other words the subject of transitional forms. They cannot do so because like all Darwinists' other claims, this is a lie, and THERE IS NOT A SINGLE TRANSITIONAL FORM TO SUBSTANTIATE IT.

2. The Transition from Water to Dry Land Deceit:

For years, Darwinists portrayed a well-known fossil fish as evidence of their myth of the transition from water to dry land. Described as the best known transitional fossil, the Coelacanth was depicted as a perfect example of that transition from water to land. According to the Darwinist myth, the creature had fins that turned into feet and was developing a lung. However, A LIVING COELACANTH was discovered in the sea in 1938. Darwinists could no longer lie about the Coelacanth. For example, the structures they had for years described as a primitive lung was nothing more than an OIL SAC. The structures they heralded as primitive legs were in fact PERFECT FINS. This life form, alleged to be on the brink of moving from the water to dry land, was in fact a BOTTOM-DWELLING FISH that inhabited depths of 180 meters and that immediately died when brought up into shallower waters. More than 300 other LIVING SPECIMENS have subsequently been caught.

The Darwinist speculation regarding the Tiktaalik was no different to that concerning the Coelacanth. The Tiktaalik, a creature with a mosaic character (containing perfect structures from different life forms), is an exceedingly complex life form with well preserved fossil remains. But its characteristics display no transitional features. Each one is a fully

developed, perfect structure found in mosaic life forms (such as the platypus). The sole reason for the Darwinist conjecture around the animal is that they interpret the fossil remains of this extinct mosaic form in the light of their own preconceptions. Just as with the Coelacanth.

The absence of a single transitional form in the myth of the transition from water to dry land, not to mention such a transition being anatomically and physiologically impossible, is alone sufficient to repudiate the claims on the subject.

3. The Evolution of Feathers Deceit:

Darwinists ignore one very important fact as they espouse the myth of a transition from land to the air. The 100 million fossils they kept hidden away have now been brought out into the daylight, and these contain perfect flying birds that were contemporary with Archaeopteryx. People have personally examined the 125-million-year-old LIAONINGORNIS fossil and the 120-million-year-old CONFUCIUSORNIS fossil. And that is why they

now laugh at deceptions such as "Archaeopteryx is a transitional fossil" or "Epidexipteryx, discovered more recently, was the ancestor of birds."

All the claims regarding Archaeopteryx have long since been discredited. It has been realized that the animal was a bird capable of perfect flight, and that its teeth and claws are structures also found in contemporary birds.

4. The Evolution of Teeth Deceit:

The way that Nature magazine and Cumhuriyet Bilim Teknik are able to carry the claim that teeth evolved and to cite a study performed on the molar teeth of mice is quite amazing. All living things have their own unique characteristics. Their anatomical structures are therefore different to one another. It is perfectly natural for mice to have genetic sequences different to those of other rodents. This is evidence, not that they evolved, but that the life forms in question were specially created for their habitats and living conditions. All living things possess, by Our Creator's will, the most perfect equipment and structures. In order to portray this as evidence of evolution, Darwinists need to produce transitional fossils revealing the

supposed development of these structures. But not a single intermediate form fossil exists. That means this claim is nothing more than Darwinist demagoguery.

5. The Evolution of the Vertebrate Skeleton Deceit:

The explanation in the report is literally this: "The neural crest, the existence of which is known only in embryos, explains why vertebrates have different skull and facial structures. But it is impossible to indicate the evolutionary history of the neural crest through fossil evidence because of the lack of embryonic data."

It is inexplicable how something for which there is no fossil evidence, as openly admitted in the article, can be depicted as evidence for supposed evolution. The neural crest in the human embryo is a magnificent structure. Cumhuriyet Bilim Teknik made do with describing the perfection of the structure in question and was also obliged to admit that there were no evolutionary races belonging to it in the fossil record. This is a blatant

confession that evolution never happened and that living things are created with all their immaculate structures.

6. The Speciation Deceit:

Members of a species always reproduce with members of the same species in nature. And various characteristics in members of a species arising due to environmental factors or present in the genes, may come to predominate in subsequent generations. In the same way that tallness may predominate in the children of one tall and one short individual. But this change arising in subsequent generations cannot turn living things into another species. Darwin's finches developed longer or shorter beaks, but they never became other life forms. They did not turn into peacocks or bats. In the example in the article, sticklebacks did not give rise to a new species by reproducing one another. Sticklebacks anosticklebacks and have acquired no new features apart from those arising from their own genes. No matter how much Darwinists attempt to mislead people by the use of variations, this very definitely constitutes no evidence for evolution.

7. The Natural Elimination Is Evolution Deceit:

Ever since Darwin's day, natural elimination has been put forward as Darwinists' most favored supposed evolutionary mechanism. But it is actually a terrible lie. Existing information in a living thing's genes may give rise to various anatomical changes on account of environmental factors. But these changes never turn one life form into another. They never bestow any new organs or structures on it. The fact that lizards' tails shorten due to environmental factors is no evidence of evolution.

8. The Simultaneous Evolution Deceit:

Simultaneous evolution is another deceptive concept employed by Darwinists. The article in question contained a scenario regarding the supposed evolution of bacteria and parasites. The interesting thing is that bacteria that existed as far back as 3.6 billion years ago are still bacteria, and their parasites are still parasites. For some reason, no changes took place in the life forms in question during this supposed evolution, and no evolution ever happened. These single-cell organisms that should,

according to Darwinists' claims, have developed and turned into fish, mammals and even human beings, are exactly the same now as they were 3.5 billion years ago. Because, like all other life forms, these creatures are entities created by their Creator, out of nothing. And they were created with the same appearance 3.5 billion years ago as that they are created with today.

9. The Evolutionary Variation Deceit:

What Darwinists keep trying to depict as evidence for evolution, albeit under different names and with different examples, is always the same thing: variations. Darwinists attempt to distort variations within a species and portray them as instances of evolution. But this is a lie. The fact that the great tits considered in the article possess different structural features in different regions represents no advantage for the theory of evolution. In order to be evidence for evolution, the birds in question would have had to have developed new structures not belonging to them, such as arms or fins. But that is impossible. These life forms change within the bounds of the information contained in their genes, as happened in the instance cited

in the paper. For that reason, certain genes becoming dominant within certain genetic structures in living things is simply variation and represents to evidence for evolution.

10. The Evolution of the Lepistes Surviving through Natural Elimination Deceit:

The way that the Lepistes fish in the article survived because of their different colors when subjected to natural elimination is no evidence of evolution. The fact a life form survives through natural elimination does not cause it to evolve. Therefore, the gradual elimination of lepistes of different colors did not bestow any new characteristics on them. Elimination of living things because of physical characteristics has no other outcome than an increase in the numbers of lepistes of some colors and a reduction in the numbers of the others. That will remain the case even over millions of years. The idea that natural elimination is an evolutionary mechanism is an entirely fictitious one.

11. The Depicting Proofs of Creation As Evidence of Evolution Deceit:

One technique employed by Darwinists is to describe the glorious characteristics of living things and then maintain that these are a miracle of so-called evolution. The magnificent hunting characteristics of the Moray eel are described in the same way in the article and the same method then employed. The animal's perfect anatomical structure, and its thin body ideally suited to its hunting technique are described in detail and then, inexplicably and with no supporting evidence of any kind, ascribed to so-called evolution. The fact is that this immaculate structure proves that the creature was created of nothing, together with all its features. There are also fossil records that show that the eel was created together with all these superior features and has remained unchanged for all the millions of years since. 95-million-year-old eel fossils demolish all evolutionist claims. Darwinists' demagogic accounts devoid of any evidence at all merely humiliate them in the face of this obvious truth.

12. The Deceit of Depicting Variation in Finch Beaks as Proof of Evolution Ever Since Darwin's Time:

Finches may have different shaped beaks within the same species. That state of affairs may also apply to other life forms. But the important thing □ as stated earlier □ is that these changes within a species already exist within the genes. These animals have possessed that information since they were first created. The differences in their beaks did arise as a result of information added to their genes subsequently. Finches will undergo variation to the extent that differences exist in their genes. It is impossible for beaks to assume any shape not already in finches' genes or to turn into any other organ.

All the examples that Darwinists have cited of speciation are deceptions. No finches have ever turned into an eagle or a bat, a mammal. No finch beak has ever turned into a terrestrial mammal's nose. These animals have never undergone any evolutionary change at all. It is a lie to claim that changes in beaks are the result of information added to the genes. It is impossible for information to be added to living things' genes in random processes and for this to bestow any advantage on an organism or develop into any new organ, and such a thing has never happened.

13. Microevolution and Macroevolution Are Deceptions:

Evolutionists refer to variation within a species as "microevolution" and to the hypothesis of the formation of new species as "macroevolution," both of which are illusory processes. But the whole thing is a lie.

1) The process known as microevolution never happened. All the examples that Darwinists cite as evidence for microevolution are in fact variations arising within a species. But variations are not evolution. An insect developing resistance to pesticides, finch beaks assuming different shapes or cows living on different continents being more or less hairy are the result of the perfect systems created within their genes. These life forms never acquired any characteristic from nowhere, and never evolved.

2) Neither did the illusory process known as macroevolution ever take place. Darwinists are lying when they claim that fossils representing evidence for macroevolution have been discovered. They possess not a single transitional form fossil. According to Darwinists, there should be billions or even trillions of fossils to verify this claim. Yet 100 million fossils

have so far been unearthed. They have all been closely examined, BUT NOT A SINGLE ONE IS A TRANSITIONAL FORM FOSSIL. Darwinists' claim that we can see evidence for macroevolution in the structure of genes is a second great lie. Indeed, because they have no evidence to support this idea, Darwinists attempt to explain it away with such demagogic and diplomatic expressions as "evolution may have had a great effect on genes."

Genes are extraordinarily complex and magnificent structures that have been operating perfectly since the moment they were first created. Even a single DNA, the smallest part of these structures, is a major challenge to Darwinists. Darwinism is a theory that has collapsed on both the molecular and paleontological levels.

14. The Resistance to Poisons Is Evidence of Evolution Deceit:

Living things are created with glorious characteristics. The structures in their bodies and what happens in them are breathtaking. Darwinists, however, generally take these structures and include them in evolutionary

fairy tales. But in doing so THEY HAVE NOT A SINGLE MOLECULAR FINDING OR FOSSIL REMAIN to act as evidence for this fictitious evolution.

The clams cited in this section are miracles of creation with their resistance to the toxin known as saxitoxin. Darwinists are unable to explain how these organism came to possess this extraordinary system, and it is impossible for them ever to do so. Because as with all living things' structures, this is extraordinarily complex and totally refutes the theory of evolution. It is also a miracle how another member of the same species should lack this immunity because it lives in a toxin-free region. God has created these organisms in the most appropriate manner for their surroundings. In order for Darwinists to be able to depict this as evidence for Darwinism, they need to show how the illusory evolutionary processes concerned took place, and what their supporting evidence is.

The idea that "clams have different properties in different habitats, and this is the result of evolution" might once have deceived primary school children, but even they can no longer be taken in by it.

15. The Attempt to Suggest Evolution with Scenarios of Evolutionary Resistance Deceit:

Since evolution is a false theory, Darwinists have a constant need to develop tactics for their propaganda. They always ascribe molecular discoveries to the theory of evolution. But rather than admitting that evolution is a lie, they keep trying to adapt new findings to it. They always depict new fossil discoveries as evidence against evolution. Rather than giving up in the absence of any transitional fossils, Darwinists try to gloss over it. As we have seen, what Darwinists do is to keep developing new tactics in the face of discoveries that repudiate evolution, rather than coming up with any proof. Darwinism is founded, not on finding and submitting evidence, but on thinking up new tactics and demagoguery. And demagoguery is essential for Darwinists, BECAUSE THEIR THEORY IS DEVOID OF ANY EVIDENCE.

One tactic is developed in section 15 of the Cumhuriyet Bilim Teknik article, with an amazing attempt to portray fossils that refute evolution as evidence

for it. There are millions of living fossils in the world. The crocodiles, deer, bears, birds, reptiles, fish, insects, and in short all living things in the fossil record have the same appearances and anatomies as they did when they were first created. The Creator has miraculously preserved them with the same appearances they had millions of years in the past. So much so that Darwinists can never gloss over the reality of living fossils.

That is why Darwinists admit the existence of living fossils but try to interpret their emergence according to their own lights. The best known example of this is the idea that life forms can remain unaltered for millions of years but then undergo sudden changes (punctuated evolution). This huge deception, based on the logic of "how can we adapt the fossil record to evolution?" has been imposed on Darwinists by the way fossils repudiate evolution. Because living things really have remained unchanged for millions of years, although the Darwinist concept of sudden changes is a lie. There is not the slightest trace of such great changes in the fossil record. Such changes cannot be tested, observed or explained. There are no traces anywhere in the world or under the ground of such momentous changes. Our Creator created living things millions of years ago with the

same appearances they have today. The idea of sudden change is, like the theory of evolution itself, a terrible lie.

More Arguments Against The God Delusion by Richard Dawkins in general

Let me focus explicitly on the end of Chapter 4, since Dawkins presents in it what he calls "the central argument of [his] book" (p. 157; all quotations and page numbers are from the 2006 edition). I have tried to take Dawkins' statements in context, but please correct me if you think I've been unfair.

His argument is as follows:

Life is too complex to have come about by pure, random chance

It is therefore tempting to believe that it was created by an "intelligent designer"(p. 157) like other complex things

However, this belief is false because a designer would be more complicated than the thing designed, and "the whole problem we started out with was the problem of explaining statistical improbability" (p. 158)

Darwinian evolution shows how life "with [its] spectacular statistical improbability" could have been produced (p. 158)

There is no analogous argument for physics, but the anthropic principle allows us to take "more luck" into account than we normally would in most arguments (p. 158)

Probably a better argument for physics does exist

Therefore, "God almost certainly does not exist" (p. 158) I'd like to point out two central inconsistencies in this argument. In addition, I'd like to examine whether Dawkins' arguments are purely empirical and derived wholly from scientific evidence and reason, or whether they contain an element of "faith".

First, let's note that Dawkins' argument is essentially one of probability. What Dawkins has attempted to show is not that God's existence is disproved but merely rendered very, very improbable. In the section Irreducible Complexity, Dawkins points out that "Chance is not a solution [to the problem of biological complexity], given the high levels of improbability we see in living organisms, and no sane biologist would ever suggest that it was." (p 119-120) We need to be very careful here.

Technically speaking, chance is a possible solution to the problem of biological complexity in the sense that it is physically possible that in 40 million B.C. a random fluctuation of molecules accidentally assembled the entire Eocene ecosystem. In the same way, a hurricane in a factory just might assemble a 747. There are no physical laws that are actually violated by either process (not even the 2nd Law of Thermodynamics; e-mail me later). But what Dawkins is saying is that no scientist in his right mind would believe a theory that depended on such a small probability. In contrast, says Dawkins, natural selection provides an elegant mechanism for the production of complex lifeforms: "natural selection is a cumulative process, which breaks the problem of improbability up into small pieces" (p. 121). In other words, given that some primitive form of life exists, natural selection provides a mechanism which ensures that the development of complex life is, if not guaranteed, at least very very probable.

What about the origin of life? Dawkins freely admits that "in once sense, it is a bigger gap" and that the origin of life may have been an "extremely improbable event" (p. 135). When he has to conjure up odds for the sake of argument, Dawkins throws out a truly improbable number (1 in a billion, p. 138), although he does say later that he "doesn't for a moment believe the

origin of life was anywhere near so improbable in practice" (p. 138).

Doesn't this mean that complex life existing at all is incredibly improbable?

No, says Dawkins, because of the anthropic principle (Dawkins is actually invoking the weak anthropic principle as opposed to the strong anthropic principle). There are a billion, billion planets in the universe. Even if the chances of life evolving spontaneously on a random planet is one in a billion, that means that there are a billion planets on which life began, and given natural selection, nearly all of them will have evolved complex life. Of course we are on one of the lucky ones, because if we were on one of the unlucky ones, we wouldn't be sitting here wondering why there is life on our planet.

Let me try to summarize Dawkins' argument thus far: given the (weak) anthropic principle, and natural selection, it is not at all surprising (i.e. it is probable) that there is a planet (perhaps many planets) somewhere in the universe which contain complex, sentient life like humans; there is no need to invoke a designer. Now we come to the problem: what Dawkins has presented thus far is not an argument, but a framework. He set out to show that there is a natural and probable explanation for the origin of complex life in the universe. If P is the probability for the existence of sentient life

somewhere in the universe, then he claims that P is large (say $> 50\%$), so we need not look for a creator God. According to his argument, $P = p * N$ where p is the probability of spontaneous biogenesis and the subsequent evolution of life on a random planet and N is the number of planets in the universe. Since astronomers and cosmologists tell us that $N = 10^{20}$, the final, conclusive step in his argument is to provide an estimate of p and to show that $p * N$ is large. So what is the probability that Dawkins calculates? He doesn't provide one. Although this number is the cornerstone of his argument, he makes absolutely no attempt to calculate it.

Since this number is such a crucial piece of his argument, let's try to estimate it using Dawkins' (admittedly low) number $1/10^9$ for the probability of the spontaneous genesis of life on a random planet and his estimate of the number of planets in the universe, 10^{20} . If these numbers are correct, then the probability that sentient life evolved somewhere in the universe is essentially 100%. But are we missing anything? Later in the chapter, Dawkins mentions that "it may be that the origin of life is not the only major gap in the evolutionary story that is bridged by sheer luck, anthropically justified. For example, my colleague... has suggested that the origin of the eucaryotic cell was an even more ... statistically improbable

step than the origin of life. The origin of consciousness might be another major gap whose bridging was of the same order of improbability" (p. 140). But if we take Dawkins at his word, something interesting happens. If -as he suggests- each of those steps were equally unlikely ($1/10^9$), then the probability of overcoming all three would be $1/10^{27}$. Given that there are 10^{20} planets, that leaves only a one in ten million chance that there is any planet, anywhere in the universe that contains sentient life like us.

Let me be clear that I am not a biologist, nor am I claiming that the probability of spontaneous biogenesis is one in a billion or one in a trillion, or any other number (if any molecular biologists are reading this, I would be very interested to know your estimate; I've asked biologists that I know and there doesn't seem to be a consensus). My point is that Dawkins does not provide any number at all because he is taking his argument the wrong way around. If you are trying to prove that P is large and find that $P = p * N$, the next logical thing to do is to estimate p and N using what we know about physical laws from astronomy and biochemistry (see p. 137). It is a specious argument to instead assert "since we know P is almost 1, we can estimate p ." Unfortunately, this is precisely what Dawkins does. On page 140, at the end of his argument about biology, he says "The anthropic

principle states that, since we are alive, eucaryotic and conscious, our planet has to be one of the intensely rare planets that has bridged all three gaps". But the anthropic principle (as Dawkins is using it) doesn't exactly say that. It says that we have a certain number (10^{18}) of planets to work with. If the probability of conscious life evolving spontaneously is greater than $1/10^{18}$, then whatever our theory of biogenesis is, it is a probable one. But conversely, it also says that if the probability is significantly less than $1/10^{18}$, then our theory is very unlikely indeed. It simply does not say "since we're here, we must be a very probable event" (the strong anthropic principle does make this argument, but Dawkins doesn't invoke it, presumably because it undermines his argument that there is a probable, natural explanation for the universe). Dawkins has constructed an elaborate framework, but has left out the final step which is the very crux of his argument.

My central objection to Dawkins' reasoning is essentially this: he has mistaken one of his postulates for a conclusion. What was his postulate? That there IS a natural, probable explanation for the origin of life. If this statement is accepted as a postulate then, and only then, does his reasoning make sense. If there is a natural, probable explanation for the

origin of life, then we can assert (indeed, must assert), as Dawkins does, that "our planet has to be one of the intensely rare planets that has bridged all three gaps" (p. 141). However, if we are trying to determine WHETHER there is a natural, probable explanation for life, we certainly cannot use this reasoning. Well, why does Dawkins' believe that there is a natural, probable explanation for life? I assert it is part of his faith in materialism. At this point, this statement might appear a bit excessive, but I believe that further justification emerges when we examine Dawkins' next argument regarding the values of the fundamental physical constants.

Dawkins points out that there are six (although there may be as many as 26) fundamental physical constants, which, if any of them were altered very, very slightly from their current values, would prohibit the existence of a life-supporting universe (usually due to the collapse of the universe within a few attoseconds of the Big Bang). Of course, this presents a similar puzzle as the origins of complex biological life and, in a sense, is a precondition for it: if these constants hadn't lined up and the universe had collapsed, complex life wouldn't exist.

Let's stop for a moment at this point. We have been trying thus far to determine whether or not there is a natural, probable explanation for the existence of complex life somewhere in the universe. Let us assume that Dawkins' argument about biology is correct: natural selection provides a mechanism that explains how otherwise highly improbable-looking evidence (biological life) has a very probable explanation. Dawkins takes great pains to show that the beauty of Darwinian evolution is that it provides such an elegant mechanism, without which the existence of life would be highly suspect. But what if we did not have an elegant theory like natural selection which purported to account for the complexity that we observe? Would not the existence of a finely tuned, complex ecosystem then be highly suspect?

That is precisely the case we find ourselves in when it comes to the fundamental constants. To quote Dawkins in what is a bit of an understatement: "we don't yet have an equivalent crane [i.e. mechanism] for physics" (p. 158). In other words, given our current understanding of the laws of physics, there is no objectively verified theory which explains the coincidence of the fundamental constants. If they were determined by pure chance, then the probability that the universe would have been able to

sustain life is ridiculously small (Roger Penrose apparently estimated the probability to be 1 in $10^{(10^{123})}$). I think it is at this point that Dawkins' presuppositions become most apparent. For instance, as far as I'm aware there is not a single piece of experimental evidence for a multiverse (see the recent review of Susskind's book in *Nature*). In a preface to his treatment of multiverse theory in *The Elegant Universe*, Brian Greene states that "No one knows if these ideas are right or wrong, and certainly they currently lie on the outskirts of mainstream science" (p. 366). That is not surprising since the infinite universes postulated by multiverse theory are usually tucked away in black holes or in other dimensions where we can't observe them. In the face of no concrete evidence and overwhelmingly negative odds, Dawkins states that "We should not give up hope of a better [mechanism] arising in physics" (p. 158). Perhaps we should not. But again, my objection is not about whether some alternate theory of physics exists that will explain life. My argument is that any belief that such a theory exists rests, as Dawkins says, on "hope" (p. 158), not on evidence.

A fundamental postulate of the materialist (I use the word descriptively, not pejoratively) worldview which Dawkins espouses is that: "everything in the

universe can be feasibly explained by natural laws", a statement to which I think Dawkins would readily assent. But is this assertion based on solely on empirical, objective evidence? There is an easy way to find out. Can everything in the universe currently be explained by natural laws, as we now understand them? In the case of physics, at least, the answer is a resounding no. The immediate objection is that we would be able to explain these phenomena if we had the right theory. But how do you know there is such a "right theory"? Such an assertion merely brings us back to the original postulate. The assertion that "at some point in the future, we WILL have a theory of that explains everything" is no more or less evidence-based than the assertion that "at some point in the future, we WILL live on the moon". Both of these statements are plausible; they may even be true. But they certainly are based, at root, on faith. That is, these statements form a set of axiomatic beliefs or presuppositions. On the contrary, it would appear that the more technologically advanced we become, the more research and findings suggest that there is indeed a Creator behind the Creation of our Universe.

Natural Selection: TRUE OR FALSE

1.)

□ No actual progress has been made by evolutionists since Darwin's day and "The Cambrian evolutionary explosion is still shrouded in mystery." (Eldredge, N., *The Monkey Business*, 1982, p. 46.) □ -at the present time nothing has changed

2.) NS is invalidated by the fact of speciation as NS only deals with traits already present and can't deal with the generation of new species genetics might be able to account for the generation of new species [see below where it is shown genetics cannot account for the generation of new species] but NS can't as the generation of new species is not part of its remit

3.) NS deals with the transmission of favorable traits and the eradication of unfavorable traits so the fact that unfavorable traits ie the gene for breast cancer are and can be transmitted and become common invalidates NS outright Some argue that harmful genes can be transmitted and become

common when accompanied by good genes but this makes natural selection wrong ie

4.)

□ natural selection, a process that causes helpful traits (those that increase the chance of survival and reproduction) to become more common in a population and causes harmful traits to become more rare □ (Ref: Futuyma, Douglas Evolution 2005 □ seeing bad genes can become common this thus makes natural selection wrong which says bad genes should be come rare or less common

Furthermore genetics cannot account for the generation of new species-ie the cambrian explosion as it is claimed the generation of new genes is a random process due to radiation, viruses, chemicals etc and genetic cannot account for these process happening as they are out side the scope of genetics physics chaos theory etc may give some explanation but genetics cant

Two major mechanisms determine which variants will become more common or rare in a population. The first is natural selection, a process that causes helpful traits (those that increase the chance of survival and reproduction) to become more common in a population and causes harmful traits to become more rare. This occurs because individuals with advantageous traits are more likely to reproduce, meaning that more individuals in the next generation will inherit these traits.[2][3] Over many generations, adaptations occur through a combination of successive, small, random changes in traits, and natural selection of the variants best-suited for their environment.[4] The second major mechanism driving evolution is genetic drift, an independent process that produces random changes in the frequency of traits in a population. Genetic drift results from the role that chance plays in whether a given trait will be passed on as individuals survive and reproduce. It will be pointed out that Natural selection/genetics does not generate new species/genes. Natural selection does not generate new genes/species Natural selection adds no new genetic information as it only deals with the passing on of genes/traits already present and it will be pointed out genetics cannot account for

the generation of new species/genes as it is claimed the generation of new genes [via mutation] is a random process due to radiation, viruses, chemicals etc and genetics cannot account for these process happening as they are out side the scope of genetics physics, chaos theory etc may give some explanation but genetics cant. However, mutation has never accounted for new genes or genetic information as mutation only HARMS these things and destroys them. Natural selection adds no new genetic information as it only deals with the passing on of genes/traits already present . A new species has completely new traits/genes which were not in an antecedent so the antecedent species could not have passed them on NS is all about the transmission of already acquired traits/genes if evolution can take place by speciation i.e. a new species has new traits/genes that are not present in the antecedent species thus NS is invalid as it cannot account for speciation. As the Natural Selection states clearly:

□ natural selection, a process that causes helpful traits (those that increase the chance of survival and reproduction) to become more common in a population and causes harmful traits to become more rare □ (Ref: Futuyma, Douglas Evolution 2005) □

More on The Darwin Theory

Is Darwin's theory of evolution proven through science?

This all sounds logical and as over the last 150 years more and more bright minds have endorsed it, taught it and further developed it, a majority of people now seem to believe that evolution is true and that the alternative - that God created us and our world - is false and only still believed by the 'uneducated' and 'gullible'.

However the 'case' for the theory of evolution is far from watertight. It seems actually to be more like a boat full of holes which - despite desperate efforts by evolutionists to keep on pumping - is slowly but surely sinking! Modern day science reveals massive problems, like (just to name a few):

The beginning needed a Creator. If there ever was a Big Bang - who or what caused it to happen? How can something (a lot, actually everything) come from nothing? Wild theories like the completely unproven evolutionary string theory require a lot more 'faith' than accepting a Creator God.

□ In this century (twentieth century), science has come to understand how the universe began from a tiny point, fifteen billion years ago. No matter how incredible it sounds, it seems that the church's ideas of a moment of creation were right from the beginning. □

(Steven Hawking, perhaps the most famous scientist alive, made this startling admission during the 1997 PBS program, Universe.)

Adolf Hitler, an evolutionary racist - as he wrote in Mein Kampf: "If nature does not wish that weaker individuals should mate with the stronger, she wishes even less that a superior race should intermingle with an inferior one; because in such cases all her efforts, throughout hundreds of thousands of years, to establish an evolutionary higher stage of being, may thus be rendered futile."

More info on evolutionary racism

Charles Robert Darwin (February 12, 1809 – April 19, 1882), the 'father' of the Theory of Evolution. That Darwin himself also was an evolutionary racist, shows in his work *The Descent of Man and Selection in Relation to Sex*: "At some future period not very distant as measured by centuries, the civilised races of man will almost certainly exterminate and replace the savage races throughout the world. At the same time the anthropomorphous apes...will no doubt be exterminated. The break between man and his nearest Allies will then be wider, for it will intervene between man in a more civilised state, as we may hope, even than the Caucasian, and some ape as low as the baboon, instead of as now between the Negro or Australian and the gorilla."

The natural laws that govern the universe and our world are perfectly fine tuned. Even minor changes in the constants of these laws and/or the natural or chemical properties of the elements critical to life would have destroyed life before it existed. How can these natural laws be so perfectly balanced and designed without a Designer?

□ It is hard to resist the impression that the present structure of the universe, apparently so sensitive to minor alterations in numbers, has been rather carefully thought out □ The seemingly miraculous concurrence of these numerical values must remain the most compelling evidence for cosmic design. □

(Paul Davies , God and the New Physics (1983), p.189)

Earth is a truly privileged planet. Chances of finding a similar habitable planet like Earth suited for life in our Milky Way galaxy or even in the entire universe are practically zero.

□ To us, the signal is so strong that even at this time, it appears that earth indeed may be extraordinarily rare. □

(Evolutionary astronomers Peter D. Ward and Donald Brownlee , Rare Earth (2000), chapter 12)

First Life. Modern science has reached the unanimous conclusion that life on a planet like earth could not have started by mere chance. The complex building blocks of the simplest living cell □ proteins, DNA and molecular machines □ do not allow for random assembly even through long periods of time. Despite decades of intense research, origin-of-life scientists have found no evolutionary explanation to explain how life could have started by natural processes alone.

□ Everything about evolution before the bacteria-like life forms is sheer conjecture, □ because □ evidence is completely lacking about what preceded this early cellular ancestor. □

(Marc W. Kirschner and John C. Gerhart, The Plausibility of Life (2005), p.46-50)

No mechanism for species to evolve. Natural selection is just variation within a species. Genetic mutations are required to evolve from one species into the next, however mutations are not common and mostly neutral. If they happen, they are almost always harmful not beneficial. The occurrence of many small, beneficial steps of mutations is against all odds and has never been observed.

□ Mutations are almost universally harmful. In human beings, they are classified as □ birth defects. □ They result in death and sterility. People today suffer from more than 4,000 disorders caused by gene mutations. Down □ s syndrome, cystic fibrosis and sickle cell anemia are familiar examples. □

(James Perloff, Tornado in a Junkyard, 1999, p.25)

The fossil record. There are no intermediate species in the fossil record. According to Darwin's theory of evolution, species would evolve to more complex new species by a series of gradual mutations. However, despite of

over 100+ years of extensive studies of the fossil record, no intermediate species have been discovered. On the contrary, the Cambrian Explosion shows the almost "overnight" appearance of the body plans of all modern day life forms at about the same moment in time.

"I look skeptically upon diagrams that show the branching diversity of animal life through time, and come down at the base to a single kind of animal". Animals may have originated more than once, in different places at different times."

(Paleontologist Harry Whittington, The Biological Explosion at the Precambrian-Cambrian Boundary, as published in Evolutionary Biology, volume 25 (1991), p.294)

The existence of so called irreducible complex molecular machines cannot be explained by gradual, 'evolutionary' involvement of the components of these machines, as these systems can only perform if all components are present. Therefore, gradual "evolution" is not possible.

"The bacterial flagellum uses a paddling mechanism, and it must meet the same requirements as other such swimming systems. And it is necessarily

comprised of at least three parts □ a paddle, a rotor, and a motor □ it is irreducibly complex. Gradual evolution of the flagellum faces mammoth hurdles.□

(Dr. Michael Behe, Darwin □s Black Box (1996), p.70-71)

Who began God?

This question is a major objection that atheists put forward to justify their disbelief. Bertrand Russell (1872□1970), a famous British philosopher, in his influential little essay, *Why I am not a Christian*, put this forward as his first objection.¹ Today□s atheists repeat the objection, including Richard Dawkins (*The God Delusion*) and Australia□s own Philip Adams at the 2010 Global Atheists□ Congress in Melbourne Australia, who said,

□ The great argument for God was that there had to be a Creation, a beginning. □ But my objection was simple. If God was the beginning who began God? □ 2

This principle of causation is so fundamental that if I said that the chair you are sitting on, which must have had a beginning, just popped into existence without any cause, you might justifiably think I need a psychiatric assessment!

The universe had a beginning; almost no one disputes that, because the laws of thermodynamics demand it: the universe is running down and it cannot have been running down forever, or it would have already run down. No stars would be still churning out energy and we would not be here.

Some have proposed one universe giving birth to another, but again, there cannot be an infinite series of such births and deaths, as each cycle must have less energy available than the last and if this had been happening for eternity, the death of everything would have already happened.

There must have been a beginning.

One of the most established principles of logic / science / reality is the principle of causality: something that has a beginning has a sufficient cause. The principle is not, "Everything has a cause"; Bertrand Russell misstated it. No, the principle is, "Everything that has a beginning has a sufficient cause". Just a moment's thought confirms this—something which had no beginning has no need of a cause. Furthermore, a cause has to be sufficient, or adequate. "You were found in a cabbage patch" is not a sufficient explanation for your existence.

This principle of causation is so fundamental that if I said that the chair you are sitting on, which must have had a beginning, just popped into existence without any cause, you might justifiably think I need a psychiatric assessment!

Today's atheists, who like to use words like "rational", "reasonable" and "scientific" in describing their beliefs, believe that the greatest beginning of all—that of the universe—had no cause whatsoever! Some admit it is a problem, but they claim that saying "God did it" explains

nothing because you then have to explain where God came from. But is this a valid objection?

What must the cause of the universe have been like?

The cause of the universe must have been non-material because if the cause was material / natural, it would be subject to the same laws of decay as the universe. That means it would have to have had a beginning itself and you have the same problem as cycles of births and deaths of universes. So the cause of the universe's beginning must have been super-natural, i.e. non-material or spirit—a cause outside of space-matter-time. Such a cause would not be subject to the law of decay and so would not have a beginning. That is, the cause had to be eternal. Besides this question of "who caused God?" is hypocrite. It could easily and equally be asked to the athiest "well, what caused the caused that caused the universe? And then again what caused THAT cause? And then again what caused THAT cause? " So, there can not be an infinite number of causes as that would be equivalent to saying that there is no universe. Which we know that there is one, of course.

More proofs against Richard Dawkin's beliefs

Let us start with "The Law of Entropy." Entropy means that unless there is a greater control over a process the process tends to fail.

The Second Law of Thermodynamics used to be, "Whenever an energy exchange takes place a portion of the energy becomes unavailable." The words "becomes unavailable" may have been to disguise the real word "disappears." The Second Law violates the First Law; energy is neither created nor destroyed. Entropy is contrary to evolution, so it may not be permitted to be discussed in detail in some classrooms. The Law of Entropy says that the Universe is cooling down, and someday will be motionless and absolute zero temperature. Entropy does not disprove evolution, but entropy does prove that an Intelligent Designer created energy, the atom, life and consciousness, intelligence and thoughts, which do disprove the theory of evolution.

With the advent of atomic energy and the Law of Entropy., the First Law of Thermodynamics, "Energy is neither created nor destroyed." This law was changed a few years ago.

Scientists opposed to evolution extend this concept to mean that order disintegrates into disorder. In contrast to the beliefs of most creation scientists, I believe that loss of energy has nothing to do with whether or not a system having heat energy (and heat being added daily by the sun) can or cannot cause species to evolve. In defense of my belief, I also believe that entropy is simply a continuous disappearance of energy whenever energy transfers. This entire book has considerable evidence that evolution did not occur. But I do not include entropy as proof.

The "Law" of Evolution says that the Universe is constantly moving from a state of disorder to a state of order, and therefore Entropy must be ignored, and never discussed. For this reason, it gives me great pleasure to discuss entropy in detail.

Entropy means that it always takes more energy to transfer energy from one material to another than the energy that can be transferred. The extra energy required cannot be recovered by any means. That energy had disappeared forever. Carnot stated entropy in terms of temperature exchanges with the equation

$$\text{Efficiency} = (T1 - T2) / T1 \quad (1)$$

Or $\text{Efficiency} = (H_1 - H_2)/H_1$

Where T_1 is the hottest temperature in degrees Kelvin of the two materials, and T_2 is the final temperature. Suppose heat is applied to make steam to drive an engine. T_1 is the temperature of the steam into the engine; T_2 is the temperature of the steam leaving the engine. H_1 is heat in and H_2 is final heat, so Efficiency is the percentage of how much energy was transferred, including frictional losses, heat radiation, heat conducted or convected away, plus all left over energy in any form, and $(1 - \text{Efficiency})$ is the amount of energy that was lost forever.

There now, that was not so difficult to say, was it? An evolutionist cannot say it. He can only become angry with the person who asks him to say it.

In my opinion, entropy is simple to explain. Energy is required to raise the energy state of any element. The amount of energy required to raise the energy state is always greater than the amount of energy released to the element when it returns to its original energy state. Just as it is easier for a person to relax than to be stressed, it is easier for any material to return to its relaxed state, which is equal to the temperature of the materials surrounding it, than it is to be stressed to a temperature level above the temperature of its surroundings. For this reason, temperature always flows downhill, and the universe is always becoming cooler, except when an atomic explosion takes place to release the internal forces of the atoms involved.

To heat a material from temperature T_2 to T_1 in equation (1) above, takes more energy than is released when the material returns to temperature T_2 . The amount of energy lost in raising the temperature and then lowering it is given by equation (1).

This law of entropy can be extended to encompass any energy exchange. Somewhere in each process, the energy exchanged involved the energy state of the electrons in the materials involved. A simple example is a steam engine. A certain amount of energy is required to raise the temperature of the steam to move a piston. The amount of work that the piston does when the steam goes back to its original temperature is described in equation (1).

Another example: The amount of electrical energy required to heat a light bulb is greater than the amount of heat and light that are radiated, conducted and convected away from the light bulb.

Conclusion: Entropy is absolute undeniable proof that the universe is not increasing in temperature, but is cooling toward absolute zero temperature. Energy could not have evolved from nothing. Entropy negates the Big Bang theory. Entropy proves that stars could not come into existence out of empty space. Entropy is proof of God and Intelligent Design. Evolutionists hate to even discuss entropy because it negates the entire false theory of evolution, which includes the false concept of the Big Bang. This has nothing to do with evolution of species. It has everything to do with the fact that energy cannot suddenly appear in empty space as Big Bang theory dictates.

Something created energy and atoms out of empty space. The fact that atoms became creatures with life consciousness proves that the something that created energy and atoms was the result of intelligent design. Entropy does not disprove evolution, but entropy does prove that an Intelligent Designer created energy, atoms, life and consciousness, which do disprove the theory of evolution.

Natural Selection MYTH

Natural Selection can't give life even with perfect compilation of all organs and cells. It can't bring any organism to life. That's why scientists can not bring a dead body back to life.

WHY NATURAL SELECTION CANNOT CROSS SPECIES

Still more facts to think about.

The DNA barrier. The DNA code is a wall which evolution cannot pass across. A creature is born like its parents. There are variations within species, but these variations are within limits permitted by the DNA code for that species. We call this the "Mendelian laws of heredity." The code

locks each species into a certain pattern, which it cannot escape from. Yet each species is permitted to have a certain range of variation. □ pp. 17-18.

The variation range within each species. Some plants and animals have a greater range than do others. For example, the chrysanthemum has been found to produce a very wide range of variations. In contrast, the cheetah has been found to have one of the narrowest ranges of any mammal. This means that one cheetah looks almost identical to the next, yet its amazing speed and athletic ability is not in the least weakened because of its narrowed range of variations. □ pp. 18, 21.

The amazing eye. Every eye is amazing, no matter which creature it is on. Did you know that there are a remarkable number of totally different types of eyes? Yet it would be impossible for one eye to change over to another type. The differences are too great. Each eye would have to come into existence exactly right and all at once. What good would half an eye be to anyone? □ pp. 18, 20.

The cell battery. ATP is the chemical compound in cells which provides them with energy. Yet the formula for making the battery is totally complicated! On one hand, there would be no possible way that it could gradually be brought into existence by "natural selection"; and, on the other, the cell could not exist without it! Without electrical energy, every plant and animal cell would quickly die. Without continual ATP production and utilization, you would be dead in a minute. □p. 19.

The marvelous organic fit. Every species of plant and animal is perfectly adapted for its environment. It was brought into existence that way. Not only is it perfect in form and structure, but it is provided with the exact food it needs to survive.

Keep in mind that "natural selection" is always said, by evolutionists, to be totally random. Then how could it make every creature have just what it needed and work just right?

Try letting "natural selection" make a pocket watch. How could iron, copper, and sand change itself into steel and brass wheels, springs, and crystal

covers? Yet a pocket watch is much simpler in design and function than is a living creature!□p. 20.

Natural selection destroys evolutionary change. The only natural selection there is, is the kind we find working within species. Anytime an individual is born with traits too far from the species norm, it dies. It does not change into a new species!□p. 21.

There should be no distinct species. Any thinking person will agree that this is a powerful argument against evolution: If natural selection really did make new variations, wandering away from the basic species,□then, if evolution were true, there would be no distinct species! Yet, instead, all we find in life today, and in the geologic strata of life in earlier times, are definite types of creatures.□p. 21.

An intelligent purpose. Evolutionists fear to admit that there is any purpose in the formation of galaxies, stars, planets, or living creatures. They fear it, because purpose points to a super-intelligent Creator.

Therefore, evolutionary theory requires total randomness in everything made.

Yet all about us we see purpose in everything. The plant is given roots to extract water and minerals; and leaves to process sunlight and water, and produce sugar. The animal is given legs, eyes, ears, and marvelous internal organs. Everything is purposive. Nothing is random or haphazard.

How long would you live without kidneys? or a heart? Yet both are very complicated and impossible to come into existence by chance. □ pp. 22-23.

Staying by the average. Statisticians well-know that all living creatures tend to keep coming back to the average. Even though varieties can be bred, if not continually guarded, their descendants will tend back toward the average. Educational psychologists call it "regression toward the mean." The offspring of the gifted will move back toward the mean, or mathematical average.

The principle of regression toward the mean rules out the possibility of evolution. □p. 24.

Mutations. Mutations are the only way that something quite different from the average could be produced. But, as we will learn in the next article in this series (Mutations), mutations only damage or kill; they never help or improve.

You will find the words, "mutation" and "mutant," tossed around a lot in contemporary literature. Much of this concerns variations within species, within the natural range permitted by the genetic code of that species.

A true mutation only wounds, sterilizes, or kills. Examples of true mutations can be found at Hiroshima and Chernobyl. □pp. 25-26.

Statements from the Richard Dawkin's Book

Richard Dawkin's says in the preface of his book:

"I need to say something to American readers in particular at this point, for the religiosity of today's America is something truly remarkable. The lawyer Wendy Kaminer was exaggerating only slightly when she remarked that making fun of religion is as risky as burning a flag in an American Legion Hall.¹ The status of atheists in America today is on a par with that of homosexuals fifty years ago. Now, after the Gay Pride movement, it is possible, though still not very easy, for a homosexual to be elected to public office. A Gallup poll taken in 1999 asked Americans whether they would vote for an otherwise well-qualified person who was a woman (95 per cent would), Roman Catholic (94 per cent would), Jew (92 per cent), black (92 per cent), Mormon (79 per cent), homosexual (79 per cent) or atheist (49 per cent). Clearly we have a long way to go. But atheists are a lot more numerous, especially among the educated

elite, than many realize. This was so even in the nineteenth century, when John Stuart Mill was already able to say: 'The world would be astonished if it knew how great a proportion of its brightest ornaments, of those most distinguished even in popular estimation for wisdom and virtue, are complete sceptics in religion.'

This must be even truer today and, indeed, I present evidence for it in Chapter 3. The reason so many people don't notice atheists is that many of us are reluctant to 'come out'. My dream is that this book may help people to come out. Exactly as in the case of the gay movement, the more people come out, the easier it will be for others to join them. There may be a critical mass for the initiation of a chain reaction.

American polls suggest that atheists and agnostics far outnumber religious Jews, and even outnumber most other particular religious groups. Unlike Jews, however, who are notoriously one of

the most effective political lobbies in the United States, and unlike evangelical Christians, who wield even greater political power, atheists and agnostics are not organized and therefore exert almost zero influence. Indeed, organizing atheists has been compared to herding cats, because they tend to think independently and will not conform to authority. But a good first step would be to build up a critical mass of those willing to 'come out', thereby encouraging others to do so. Even if they can't be herded, cats in sufficient numbers can make a lot of noise and they cannot be ignored. "

As you can see from just the preface Mr. Dawkin's has quite an anti religious outlook

on his scientific career and obviously doesn't necessarily honestly look for scientific truth but is more on personal agenda to strip the american public of religion and/or

spread athiesm. As he said the spread of athiesm is his dream.

Furthermore how can his personal motive to strip

the american public of religious belief in God be compared to human rights? Why is he saying

this nonsense? Is he openly declaring that his only real motive is not to do his real job

of trying to find out the origins of the universe and new scientific proofs but merely to use his influence

in order push his personal agendas on the american public?

Hmmm interesting...

He continues later on to say:

All Sagan's books touch the nerve-endings of transcendent wonder

that religion monopolized in past centuries. My own books have

the same aspiration. Consequently I hear myself often described as

a deeply religious man. An American student wrote to me that she

had asked her professor whether he had a view about me. 'Sure,' he

replied. 'He's positive science is incompatible with religion, but

he waxes ecstatic about nature and the universe. To me, that is religion!' But is 'religion' the right word? I don't think so.

The Nobel Prize-winning physicist (and atheist) Steven Weinberg made the point as well as anybody, in *Dreams of a Final*

Theory:

Some people have views of God that are so broad and flexible that it is inevitable that they will find God wherever they look for him. One hears it said that 'God is the ultimate' or 'God is our better nature' or 'God is the

A D E E P L Y R E L I G I O U S N O N - B E L I E V E R 13

universe.' Of course, like any other word, the word 'God' can be given any meaning we like. If you want to say that 'God is energy,' then you can find God in a lump of coal.

Weinberg is surely right that, if the word God is not to become

completely useless, it should be used in the way people have generally understood it: to denote a supernatural creator that is 'appropriate for us to worship'.

Mr. Dawkin's either has a relatively bad understanding of majority of the three major religions (Christianity, Judaism and Al-Islam) or he is purposefully playing the exaggeration game with religious people about how we don't even have a basic idea of who God is and the who is God exactly game routine? As if we don't generally recognize God as the Creator of the Universe, and it's Sustainer. But he is of course comparing us to the views people who are not sure of who God is. Well there are people in every field of life that have beliefs and don't know why. But c'mon can you honestly say that there isn't a real major understanding of who God is. How on earth did we come up with the truth that "we were all created equal" and other truths. He preached all of this indoctrination nonsense then at the end he says " if the word God is not to become completely useless ...it should be used in the way people generally understood it..." Well, we know Mr. Dawkin's does indeed hope and dream that God is

taken out of the american society, even if it means he has to sacrifice entire life making up stupid new theories that don't include God in them just so people can lose religious faith and think that people like him are actually doing unbiased research. We, the american public, don't care if you worship God or not. We do however care if you brainwash us and our kids with your personal agendas and and fake scientific theories about stupid multi-universes and use your power as a scientist to your personal advantage.

The title of this book immediately betrays the bias of the author—even for those unacquainted with the writings of this Professor of the (so-called) Public Understanding of Science of Oxford University, Richard Dawkins. Just to skim the chapter contents is to give one a forewarning of what to expect. For instance, Chapter 1 is entitled “A deeply religious believer in no God.” Chapter 4: “Why there almost certainly is no God.” Chapter 7 is “The “Good” Book and the changing moral Zeitgeist”—showing Dawkins’ absolute dislike of the message of the Judeo-Christian Scriptures. More provocatively still, the ninth chapter is “Childhood, abuse and the escape from religion.” The single appendix is “a partial list of

friendly addresses, for individuals needing support in escaping from religion.□

So much for any attempt at balance and objectivity□this book is certainly not a disinterested search for truth and is devoid of any careful weighing of evidence, for and against his thesis. Rather, it is this author□s most polemical work to date, that of a man driven by an unholy zeal to depose the God he claims to disbelieve in but transparently hates perfectly sound religious faith and america's belief in God.

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□I am attacking God, all gods, anything and everything supernatural, wherever and whenever they have been or will be invented.□ (p. 36: emphasis added in all quotes unless otherwise stated)

However, he takes pains to inform his reader that his venom is mostly reserved for monotheistic forms of God and one in particular:

□ Unless otherwise stated, I shall have Christianity mostly in mind, but only because it is the version with which I happen to be most familiar. □ I shall not be concerned at all with other religions such as Buddhism or Confucianism. □ (p. 37)

Dawkins gets angry with what he views as the unhealthy and undeserved respect accorded to religious belief and closes the first chapter with:

□□ my own disclaimer for this book. I shall not go out of my way to offend, but nor shall I don kid gloves to handle religion any more gently than I would handle anything else. □ (p. 27)

Ironically, the first sentence of the next chapter is a veritable torrent of abuse¹ directed at □ The God of the Old Testament □ arguably the most unpleasant character in all fiction □□ I found offensive and blasphemous. Similar outbursts appear elsewhere but when a professed atheist engages in such frequent name-calling □□ psychotic delinquent □ (p. 38), □ monster □

(p. 46) and "evil monster" (p. 248) will suffice as examples—one wonders how secure he really is in his atheism.

Such animosity is unlikely to inspire confidence in the reader who wishes to be presented with a well-argued cogent case but will obviously bring plaudits from Dawkins' most ardent supporters (e.g. Playwright just plain wrong). The perceptive reader—regardless of their bias—will not fail to notice the contradiction between this antagonism towards the Judeo-Christian God, illustrated by numerous outbursts against His attributes, and the following claim:

"I am not attacking the particular qualities of Yahweh, or Jesus, or Allah
" (p. 31)

However, it is not for nothing that Dawkins has been described as
"Darwin's Rottweiler";² his claimed rationale is spelt out as follows:

"Instead I shall define the God Hypothesis more defensibly: there exists a superhuman, supernatural intelligence who deliberately designed and created the universe and everything in it, including us. This book will advocate the alternate view: any creative intelligence, of sufficient

complexity to design anything, comes into existence only as the end product of an extended process of gradual evolution. (emphases in original; p. 31).

Those who have seen Dawkins' television documentaries 'Root of all evil?' will be familiar with the tenor of his rhetoric on what he here calls the God Hypothesis. Like those programs, The God Delusion spews forth more of the same unsubstantiated claims and specious arguments. Of course, those who are desperate for justification of a world-view that removes accountability to the Creator and Judge of all human beings will be blind to these fatal flaws. Consequently, Matt Ridley—author of books on genetics and human behaviour—endorses this polemic as,

so refreshing It feels like coming up for air.

More disturbingly still, Philip Pullman—acclaimed author of the award-winning children's trilogy, His Dark Materials—says,

It is so well written, in fact, that children deserve to read it as well as adults. It should have a place in every school library—especially in the library of every 'faith' school.

Why read and review a 400-page treatise of a man's hatred of God? Simply because, for all Richard Dawkins's ranting ways, he is so widely promoted in the mainstream media that he cannot be ignored. While it is true that a number of non-believers do smell a rat when they observe such blatant antireligious bias, many more—including a constituency of his readers that attend churches—accord this man's writings and opinions with considerable honour. The limitations of a review mean there is much that begs for comment or critique that must be ignored, while seeking to arm the reader with many usable Dawkins quotations.

Who is deluded?

Early on, Dawkins emphasises that *The God Delusion* does not refer to the physicists's God (see Einstein, the universe and God) but to supernatural gods, especially Yahweh of the Old Testament (p. 20). It is believers in this God who are the really deluded ones and this is why he has written what he unashamedly describes as 'a book on religion' (p. 351); albeit advocating a view that is indistinguishable from humanism, rather than (as he asserts) no religion at all:

□The truly adult view, by contrast, is that our life is as meaningful, as full and as wonderful as we choose to make it. And we can make it very wonderful indeed.□ (p. 360)

□The atheist view is correspondingly life-affirming and life-enhancing, while at the same time never being tainted with self-delusion, wishful thinking, or the whingeing self-pity of those who feel that life owes them something.□ (p. 361)

Those who happen to reject Dawkins' self-described 'atheistic world-view' (p. 344) or yet worse, creationists are singled out for the professor's most scathing ridicule: 'unsophisticated Christians' (p. 94) and 'dyed-in-the-wool faith-heads' (p. 5). 'Creationist logic' is always the same (p. 121) and even intelligent design theorists are 'lazy and defeatist' (p. 128) according to this Oxford sage. Those who believe in irreducible complexity are 'no better than fools' (p. 129). In fact, Dawkins makes no effort to moderate his contempt after all he is an atheist, and atheism is not even 'tainted with self delusion':

□□ atheism nearly always indicates a healthy independence of mind and, indeed, a healthy mind.□ (p. 3)

The man's arrogance is palpable. At one point, having attacked irreducible complexity, he says:

"we on the science side must not be too dogmatically confident." (p. 124)

Ignoring for a moment the false science-vs-creation sleight-of-hand, the irony is that Dawkins is utterly dogmatic and insistent that his own views on religion are superior to all others! He seems genuinely unaware of his crass hypocrisy when he writes:

"Far from respecting the separateness of science's turf, creationists like nothing better than to trample their dirty hobnails all over it." (p. 68)

This is rich, appearing as it does in a book by a scientist that purports to engage with theology. Indeed, philosopher and Marxist Terry Eagleton opened his own review of *The God Delusion* with these words:

□ Imagine someone holding forth on biology whose only knowledge of the subject is the Book of British Birds, and you have a rough idea of what it feels like to read Richard Dawkins on theology. □4

Similarly, leading philosopher Alvin Plantinga argues⁵ that Dawkins □ forays into philosophy could be called sophomoric were it not a grave insult to most sophomores.

Who are you calling a fundamentalist?

Those who adhere to a belief in divine revelation subvert science, claims Dawkins.

□ By contrast, what I, as a scientist, believe (for example, evolution) I believe not because of reading a holy book but because I have studied the evidence. □ (p. 282)

□ □ and we would abandon [evolution] overnight if new evidence arose to disprove it. No real fundamentalist would ever say anything like that. □ But

my belief in evolution is not fundamentalism, and it is not faith, because I know what it would take to change my mind, and I would gladly do so if the necessary evidence were forthcoming.□ (p. 283)

Ah, but does he really know his own mind□which after all is ultimately just the by-product of random atomic collisions in his world-view? The professor is on record as saying something very different the previous year:

□I believe, but I cannot prove, that all life, all intelligence, all creativity and all □design□ anywhere in the universe is the direct or indirect product of Darwinian natural selection.□6

Yet elsewhere he derides Christianity for allegedly believing things without proof (ignoring G□del□s famous incompleteness proof that any system as complex as arithmetic will have true statements that are unprovable within the system), so he shows his hypocrisy. Certainly Christians start from axioms, i.e. starting propositions believed to be true without proof, although it is rational to do so as we have explained□and all belief systems start with axioms, as Dawkins illustrates. And does he seriously expect anyone to believe that he would □gladly□ change his mind about evolution if the

evidence conclusively falsified it? In a rare instance of (feigned?) even-handedness, Dawkins actually claims,

□ I do not, by nature, thrive on confrontation. I don't think the adversarial format is well designed to get at the truth □□ (p. 281)

Yet, this entire book furnishes ample evidence that he has failed to follow his own advice!

A sampling of arguments against God

The fact that Dawkins's critiques of many carefully argued and long-standing arguments for God's existence are dealt with in very few pages tells us more about the power of his own self-belief than the soundness of his refutations. For instance, arguments that invoke Thomas Aquinas's □ Unmoved Mover □ and □ Uncaused Cause □ (or similar) are plain wrong, he says in a blatant ipse dixit,⁷ because the implied/explicit infinite regress must also apply to God himself (p. 77–78) (although philosophers argue cogently that only that which has a beginning needs a cause). Chapter 3 barely scratches the scratch on the surface with respect to other philosophical arguments for the Divine. As for □ the argument from

personal "experience" (p. 87-92), Dawkins believes that this kind of thing simply demonstrates "the formidable power of the brain's simulation software" (p. 90). But then, how can we be sure that his atheistic just-so story-telling doesn't demonstrate the same thing, according to his own "reasoning"?

"The argument from Scripture" (its reliability) is dispatched in only five pages and contains some especially fatuous statements, such as:

"The historical evidence that Jesus claimed any sort of divine status is minimal. " there is no good historical evidence that he ever thought he was divine." (p. 92) [but see The Divine Claims of Jesus and Jesus' Assertion of Godhood: Miscellaneous Claims]

"Nobody knows who the four evangelists [gospel writers] were, but they almost certainly never met Jesus personally." (p. 96) (of course ignoring real historical evidence such as Gospel Dates, Gospel Authors, Gospels Freedoms)

"It is even possible to mount a serious, though not widely supported, historical case that Jesus never lived at all " (p. 97) [It's possible to mount a "serious, though not widely supported " case" on anything you

like, e.g. the non-existence of Dawkins, but no historian takes the non-existence of Jesus seriously□see Shattering the Christ-Myth]

Each of these assertions is made without a shred of supporting evidence and amount to so much bluff and bluster. Since the nineteenth century, □scholarly theologians□ (i.e. liberals) have all but proved the unreliability of the Gospels□so he says. His other sources for alleged contradictions or errors in the New Testament are sceptics like himself, such as a writer for the Free Inquiry, and he actually thinks that embittered apostate charlatans like Brian Flemming are credible. Does he seriously believe that Christians have no answer to the charge that, since Matthew 1 and Luke 3 record very different genealogies, this is a □glaring contradiction□ (never mind that theologians have long shown from the original Greek grammar that Luke is presenting Mary□s line)? Predictably, he wheels in gnostic writings to further poison these already muddy waters (p. 96).

□The central argument□□attacking design

Chapter 4 □contains the central argument of my book□, says Dawkins, and he gives a useful six-point summary of it (pp. 157□158). To pr□cis this

yet further: It is tempting to explain design using the watchmaker analogy but this is false because the Designer then needs an explanation (again misconstruing the designer as having a beginning in the first place, as well as explaining away the fact that God is not composed of different parts). Ergo, natural selection is the only option and we can now safely say design is merely an illusion. An ultimate origin (i.e. of the universe itself) awaits a better explanation but the multiverse theory is favoured by Dawkins, even though the alleged other universes are not observable even in principle, so it is hardly a scientific theory. We should not give up hope of finding something as powerful as Darwinism is for biology to explain cosmology. That is basically all there is to the book's central argument and anyone conversant with Dawkins' previous writings (e.g. *Climbing Mount Improbable*) will find nothing novel here.⁸

He does engage with Behe's concept of irreducible complexity⁹ though very weakly indeed. After quoting from Darwin, he concedes,

The creationists are right that, if genuine irreducible complexity could be properly demonstrated, it would wreck Darwin's theory. But I can find no

such case. □ Many candidates for this holy grail of creationism have been proposed. None has stood up to analysis. □ (p. 125)

One wonders how thoroughly Dawkins has explored each case of claimed irreducible complexity. For instance, his attempt at a refutation of the bacterial flagellum motor is straight out of Kenneth Miller's discredited book *Finding Darwin's God*, an argument that is as fallacious as it is audacious.¹⁰ Surprisingly he even gets his facts wrong, claiming that:

□ The flagellar motor of bacteria □ drives the only known example, outside of human technology, of a freely rotating axle. □ (p. 130)

□ It has been happily described as a tiny outboard motor (although by engineering standards □ and unusually for a biological mechanism □ it is a spectacularly inefficient one. □ (pp. 130 □ 131)

On the contrary, Dawkins is apparently ignorant of the F1 ATPase motor,¹¹ direct observations of the rotation of which were published in *Nature* in 1997; that same year, several scientists shared the Nobel Prize for Chemistry for this discovery. Also, the bacterial flagellum motor is 100% efficient at cruising speed.¹² Such errors hardly inspire confidence.

It's notable that Dawkins says he recommends Miller's book to Christians—showing clearly how he treats theistic evolutionists as “useful idiots” who undermine their own faith.

In fact, his insinuation of a “god of the gaps” mentality grossly misrepresents the argument for irreducible complexity. Far from being an intellectual cop-out (“we can't imagine how this complexity was produced so God must have done it”), design is the only credible scientific explanation for certain data based on what we do know—it is precisely for this reason that non-theists and agnostics have joined the ID movement.

However, no matter how powerfully a case can be made for irreducible complexity, Dawkins will then appeal to his final “clincher” argument:

“the designer himself (/herself/itself) immediately raises the bigger problem of his own origin. Far from terminating the vicious regress, God aggravates it with a vengeance.” (p. 120)

Aside from the fallacy pointed out already, Christian philosopher Alvin Plantinga has pointed out that his argument also begs the question by presupposing materialism. In other words, it presupposes that God is composed of the same sort of matter/energy as the universe, and subject to the same laws. Such an approach a priori rules out the notion that God is spirit, is the uncaused First Cause, is eternal, etc. It thus seeks to discredit God's own claims about Himself without engaging them on their own terms, ruling them inadmissible by default.

Origin of morality

In chapter seven, the missionary zeal of this apostle of atheism becomes very apparent indeed. His thesis is that morality needs neither God nor religion and that the Bible's standards of morality are abhorrent. First of all, he launches a diatribe against the Old Testament and key players in its history (p. 237–250). To Dawkins, much of the Bible is “weird” and strange so perhaps his theological illiteracy is partly accounted for. Yet, for a man who has clearly studied the Bible—after a fashion—his (mis)use of it in these pages smacks more of calculated deceit. Almost gleefully, he describes immoral actions (such as Lot's incest with his daughters in

Genesis 19 and the Levite's behaviour concerning his concubine in Judges 19) and concludes that this shows the Bible is not our source for morality (ignoring that not everything reported in the Bible is endorsed by the Bible). But he also wilfully twists the actions of the heroes of faith—so Abraham's willingness to sacrifice Isaac is ripped out of all context to make him a child abuser! Moses and Joshua also receive a bashing by this self-appointed theological expert, but his animosity is always at its fiercest when he is persecuting the God that these biblical figures worshipped and served:

□ What makes my jaw drop is that people today should base their lives on such an appalling role model as Yahweh □□ (p. 248).

Dawkins truly lives up to the name □A Devil's Chaplain□¹³ when he writes about the New Testament, quickly showing his true colours. For instance,

□□ there are other teachings in the New Testament that no good person should support. I refer especially to the central doctrine of Christianity: that of □atonement□ for □original sin□. This teaching, which lies at the heart of New Testament theology, is almost as morally obnoxious as the story of

Abraham setting out to barbecue Isaac, which it resembles□and that is no accident □□ (p. 251)

As an aside, Dawkins never tells us how he defines a □good person□. Indeed, he bandies about such terms as □good□ and □evil□ (often when indulging in ad hominem remarks about his detractors) quite brazenly and fails to justify his inconsistent absolutist position. So,

□□ Hitler and Stalin were, by any standards, spectacularly evil men.□ (p. 272)

□Faith is an evil precisely because it requires no justification and brooks no argument.□ (p. 308)

By what standards (omitting the Bible which he rejects) does Dawkins make these points? He doesn□t say. And it seems incongruous with his recent support for eugenics, on the grounds that 60 years is enough time to reconsider some of Hitler□s ideas.

However, what is more pertinent here is that Dawkins reveals his understanding of the central tenets of the Christian faith. Without Adam's sin, Jesus' atoning sacrifice for sins (foreshadowed by the Abraham/Isaac incident; i.e. "no accident") becomes meaningless. The doctrine of original sin and the atonement is, as he says, at the very "heart of New Testament theology"; we heartily agree. Yet this Gospel is an offence to Dawkins who has chosen to deny God and deny his own sin in order to avoid accountability to his Creator:

"Original sin itself comes straight from the Old Testament myth of Adam and Eve. Their sin—eating the fruit of a forbidden tree—seems mild enough to merit a mere reprimand. But — They and all their descendants were banished forever from the Garden of Eden, deprived of the gift of eternal life — (p. 251)

How tragically ironic that the very doctrines which Dawkins attacks with a vengeance are also denied by theological liberals and by increasing numbers of professing evangelicals—some have lately been downplaying or attacking not only Creation and the Fall of man but also the penal substitution of Christ for sinners.¹⁴

□ But now, the sado-masochism. God incarnated himself as a man, Jesus, in order that he should be tortured and executed in atonement for the hereditary sin of Adam. Ever since Paul expounded this repellent doctrine, Jesus has been worshipped as the redeemer of all our sins. □ (p. 252)

Later, Dawkins asks why God couldn't just forgive sins without sacrifice but he knows the biblical answer and actually refers directly to Hebrews 9:22. So Dawkins does understand Christianity □ much better than many ordinary Christians do □ but he wilfully rejects it. In fact, he admits to hoping to make atheists out of some of his religious readers (p. 5).

This is an important take-home message. Dawkins is on a mission is to undermine faith in the Lord Jesus Christ as the only Saviour of human beings. The pronouncements of theistic evolutionists and others who downplay Genesis as history aid and abet him and his ilk:

□ To cap it all, Adam, the supposed perpetrator of the original sin, never existed in the first place: an awkward fact □ □ (p. 253)

Defending the historicity of Adam is something that Dawkins would fully expect creationists to do—though he despises them for doing so. On the other hand, his disdain for fence-sitters (p. 46) and theological compromisers is hard to miss; for example:

□ Oh, but of course, the story of Adam and Eve was only ever symbolic, wasn't it? Symbolic? So, in order to impress himself, Jesus had himself tortured and executed, in vicarious punishment for a symbolic sin committed by a non-existent individual? As I said, barking mad, as well as viciously unpleasant.□ (emphasis in original; p. 253)

Clearly, Dawkins hates these doctrines for the moral problem that they expose in himself and others but he has another reason too—an originally perfect Creation and Redemption through the atoning work of Jesus are diametrically opposed to his naturalistic world-view, a vision that he believes, passionately, requires no God:

□ I am continually astonished by those theists who, far from having their consciousness raised in the way that I propose, seem to rejoice in natural selection as □ God's way of achieving his creation.□□ (p. 118).

Other examples of Dawkins's criticism of compromising "believers", who pick and choose which parts of the Bible they are comfortable with, are found on pages 157 (belief in the Virgin Birth and the Resurrection), 238 (Genesis not literal), and 247 (Scriptures symbolic or literal).

Dawkins's man of faith

We have already seen that the author is careful to disparage anything and anyone religious. Chapter 5 is a vain and facile attempt to explain religion's roots from a naturalistic perspective. Religion might be "a placebo that prolongs life by reducing stress" (p. 167) or perhaps it exists merely as a by-product of some separate entity that gave survival value (not having any survival value of its own; p. 172). For example, it's good for a child to trust his/her parents (it enhances survival value) but religious beliefs are also, thereby, passed on. Alternatively,

"Could irrational religion be a by-product of the irrationality mechanisms that were originally built into the brain by selection for falling in love?" (p. 185)

Having just decried the idea that faith is a virtue (and scorned those who believe in the Trinity but concede their limited comprehension of all it entails), Dawkins gives us his best shot at explaining why religion exists:

□□ memetic natural selection of some kind seems to me to offer a plausible account of the detailed evolution of particular religions.□ (p. 201)

Yet, the □meme□ hypothesis of Dawkins merely describes the transmission of ideas and beliefs over generations and falls far short of explaining the origin of religion□amounting to so much hand waving (even according to many evolutionists) and, well, faith (of the blind sort, not the biblical kind). It also ignores the historical evidence for the claims of Christianity, in particular Jesus□ resurrection.

Dawkins believes that morality probably predated religion (p. 207). Then again, he ought to know because he believes he has a firm grasp on the difference between true and false religion. Thus, we are told that the atrocities perpetrated by Hitler (a fanatical evolutionist, incidentally) were carried out by soldiers □most of whom were surely Christian□ (p. 276, although atheist and famous evolutionary biologist Ernst Mayr testified that

biblical Christianity was almost non-existent in Germany when he grew up)! Furthermore, "without religion there would be no labels by which to decide whom to oppress and whom to avenge" in Northern Ireland and "the divide [between Protestant and Catholic] simply would not be there" (p. 259)! Perhaps he has forgotten the Hutu/Tutsi divide in Rwanda. After all, religion is "the root of all evil".³ In contrast, he seeks to reassure the reader:

"Stalin was an atheist and Hitler probably wasn't; but " the bottom line of the Stalin/Hitler debating point is very simple. Individual atheists may do evil things but they don't do evil things in the name of atheism." (p. 278)

One hopes that many of his readers are rather more well-informed than Dawkins gives them credit for.¹⁵ Christian persecutions were inconsistent with the teachings of Jesus, while atheistic persecutions were consistent with atheism—indeed, communists have persecuted non-atheists precisely because they were non-atheists .

So, "why are we good" (chapter 6) if a bloody evolutionary struggle is responsible for human existence?

□ Could it be that our Good Samaritan urges [our altruistic tendencies] are misfirings, analogous to the misfiring of a reed warbler's parental instincts when it works itself to the bone for a young cuckoo? □ (p. 220 □ 221)

Dawkins is not joking □ for humans also, feelings of pity are no different from lust:

□ Both are misfirings, Darwinian mistakes: blessed, precious mistakes. □ (p. 221)

Dawkins is truly a man of considerable faith, witness the following pseudoscientific beliefs that he holds:

□ There are probably □ superhuman □ alien civilizations elsewhere in the universe (p. 72).

□ □ I think it is definitely worth spending money on trying to duplicate [the origin of life] event in the lab and - by the same token, on SETI, because I think that it is likely that there is intelligent life elsewhere □ (p. 138).

□ There may well be a plethora of universes (the □multiverse□) and he even claims: □we are still not postulating anything highly improbable□ (p. 147)!

In addition, he indulges in blatant circular reasoning on several occasions:

□We exist here on Earth. Therefore Earth must be the kind of planet that is capable of generating and supporting us □□ (p. 135)

□Darwinian evolution proceeds merrily once life has originated. But how does life get started? The origin of life was the chemical event, or series of events, whereby the vital conditions for natural selection first came about.

□ The origin of life is a flourishing, if speculative, subject for research. The expertise required for it is chemistry and it is not mine.□ (p. 137)

He is right about his ignorance of chemistry. But, neither does the professor have expertise in theology or astrophysics, yet he discusses these at length. The real reason for his disclaimer is that nobody has the faintest idea how life got started□but that it happened is axiomatic for Dawkins:

□□ we can make the point that, however improbable the [naturalistic] origin of life might be, we know it happened on Earth because we are here.□ (p. 137)

That has to be the ultimate in circularity although there are other instances in the book (e.g. regarding human embryos, p. 300). One of his main arguments against God's existence, as we have seen, is that such a being demands an explanation but is held to exist by faith. He is seemingly blind to the many incredible things (also complex and demanding an explanation) which he believes as a matter of faith; such as other universes, the spontaneous origin of life and ETs—all without a shred of supporting evidence. Dawkins believes that Darwinism explains the whole shebang:

□ Think about it. On one planet, and possibly only one planet in the entire universe, molecules that would normally make nothing more complicated than a chunk of rock, gather themselves together into chunks of rock-sized matter of such staggering complexity that they are capable of running, jumping, swimming, flying, seeing, hearing, capturing and eating other such animated chunks of complexity; capable in some cases of thinking and

feeling, and falling in love with yet other chunks of complex matter. We now understand essentially how the trick is done, but only since 1859.□ (p. 366□367).

And this is the man who is trying to convince his readership that believers in God are deluded!

Abusing education

In view of the foregoing, it is not easy to stomach Richard Dawkins□ sanctimonious attitude towards his dissenters who choose to teach their children a biblical world-view□one which incorporates honour and respect for God and for one's fellow human beings. He is, by now, infamous for his attacks on Christian schools which dare to expose children to alternatives to his bleak, atheistic take on life□such parents and teachers are guilty of □child abuse□ in his celebrated opinion. More than once, Dawkins argues that there is no such thing as a Christian child or a Muslim child (e.g. p. 338 & 339), something that many children would have something to say about! He has a real fixation about this:

□Fundamentalist religion is hell-bent on ruining the scientific education of countless thousands of innocent, well-meaning, eager young minds. Non-fundamentalist, □sensible□ religion may not be doing that. But it is making the world safe for fundamentalism by teaching children, from their earliest years, that unquestioning faith is a virtue.□ (p. 286)

Absolutism, he argues, has a dark side□many times in the book, he equates believers in a literal Genesis or the conservative Christians of the USA with the □Taliban□ (e.g. p. 289). Needless to say, he admits little of the dark side of atheistic and evolutionistic intolerance and absolutism and its consequences for the lives of millions during the last century.¹⁶

He expects young people to be exposed to his wisdom, yet how many parents would be happy for their children to imbibe Dawkins□ twisted take on human life:

□When I am dying, I should like my life to be taken out under general anaesthetic, exactly as if it were a diseased appendix. But I shall not be allowed that privilege, because I have the ill-luck to be born a member of

Homo sapiens rather than, for example, Canis familiaris or Felis catus.□ (p. 357)

Dawkins does concede that if, □having been fairly and properly exposed to all the scientific evidence, they [children] grow up and decide that the Bible is literally true or that the movements of the planets rule their lives, that is their privilege.□ (p. 327)

But, he says, parents should not impose their views on their children. Of course, the learned professor is exempt from his own advice□witness the incident he related in Climbing Mount Improbable, where he took pains to put his young daughter □right□ for taking a teleological view of wild flowers.¹⁷ Exposing young people to □all the scientific evidence□ clearly would not equate to teaching evolution □warts and all□□including its scientific flaws□in Dawkins□ mind!

Finding common ground

Are there any parts of this anti-God disputation with which a creationist might agree? Well, yes, but many are a sad reflection on the state of the church—and of society in general—in our western culture:

□ In England □ religion under the aegis of the established church has become little more than a pleasant social pastime, scarcely recognizable as religious at all. □ (p. 41)

□ There seems to be a steadily shifting standard of what is morally acceptable. □ (p. 268)

However, this changing □ spirit of the age □ (zeitgeist) is something Dawkins approves of. Those who □ advance □ with the times therefore approve of abortion. Dawkins correctly notes:

□ [For] the religious foes of abortion □ An embryo is a □ baby □, killing it is murder, and that's that: end of discussion. Much follows from this absolutist stance. For a start, embryonic stem-cell research must cease. □ (p. 294).

But how many pro-lifers realise the foundational (Genesis) basis for defending the sanctity of human life? An ignorance of what the Bible actually teaches in its opening chapters is lamentable. Elsewhere in his book, Dawkins says:

□I must admit that even I am a little taken aback at the biblical ignorance commonly displayed by people educated in more recent decades than I was.□ (p. 340□341)

Biblical ignorance is a large part of the reason for the moral laxity and relative moral stance taken by so many today (including within churches)□although Dawkins□s point is simply that the Authorized, King James Version of the Bible has important literary merit.

And finally, we would, with Dawkins, highlight this statement (though not in the way he means it):

□Who, before Darwin, could have guessed that something so apparently designed as a dragonfly□s wing or an eagle□s eye was really the end product of a long sequence of non-random but purely natural causes?□ (p. 116; emphasis in original).

Conclusion

As Stephen Meyer has said" Theism wins over a deist view because only theism, as an interventionist view, "can explain the origin of biological information as the result of God's creative activity at some point after His initial Creation."

My advice to everyone is to do good and be conscious of the day you die and then return where you came from. We all appeared all the sudden in this place we call life. Our Creator will settle our religious disputes Himself when we go back to Him. He made death a promise to each and everyone of us. The world was made to end, it wasn't given water? or supplies for eternity. Believe in God, and that what goes around comes around. And everything we do, we'll get the equivalent of. So do? enough good for the next life. You will be Repaid it. When we die and are given a proper equivalence of all of our actions. Then it will be too late to repent. So, if you will then pray with me. Lord, Forgive our sins. And save us from the Penalty of them. Grant us a Noble Entrance into Paradise. Ameen. I am glad to that all of you Believers and Non Believers have picked up this book. Incase you would be interested I have included below a very quick description of proofs regarding my Belief in God, The Creator. Just so you know, this will, God Willing, be taken from the Holy Qur'an.

A) The Quran on Human Embryonic Development:

In the Holy Quran, God speaks about the stages of man's embryonic development:

We created man from an extract of clay. Then We made him as a drop in a place of settlement, firmly fixed. Then We made the drop into an alaqah (leech, suspended thing, and blood clot), then We made the alaqah into a mudghah (chewed substance)... 1 (Quran, 23:12-14)

Literally, the Arabic word alaqah has three meanings: (1) leech, (2) suspended thing, and (3) blood clot.

In comparing a leech to an embryo in the alaqah stage, we find similarity between the two (2) as we can see in figure (1). Also, the embryo at this stage obtains nourishment from the blood of the mother, similar to the leech, which feeds on the blood of others. (3)

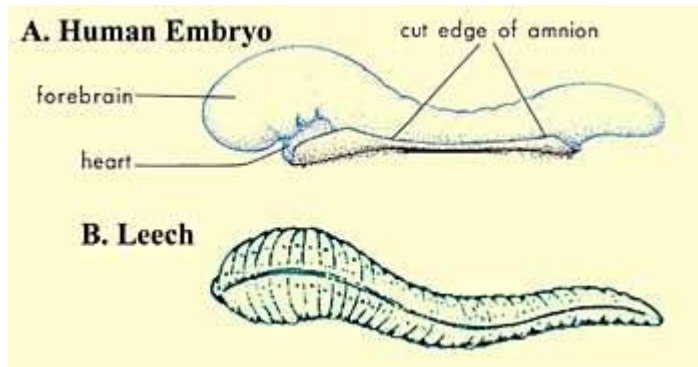


Figure 1: Drawings illustrating the similarities in appearance between a leech and a human embryo at the alaqa stage. (Leech drawing from Human Development as Described in the Quran and Sunnah, Moore and others, p. 37, modified from Integrated Principles of Zoology, Hickman and others. Embryo drawing from The Developing Human, Moore and Persaud, 5th ed., p. 73.)

The second meaning of the word alaqa is “suspended thing.” This is what we can see in figures 2 and 3, the suspension of the embryo, during the alaqa stage, in the womb of the mother.

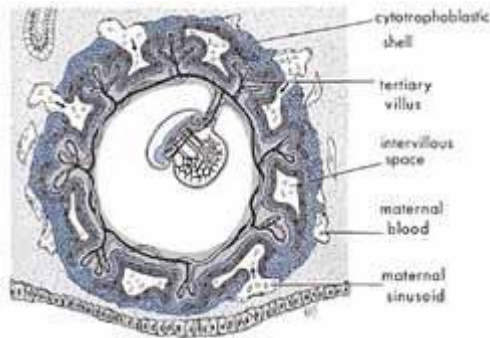


Figure 2: We can see in this diagram the suspension of an embryo during the alaqa stage in the womb (uterus) of the mother. (The Developing Human, Moore and Persaud, 5th ed., p. 66.) (Click on the image to enlarge it.)

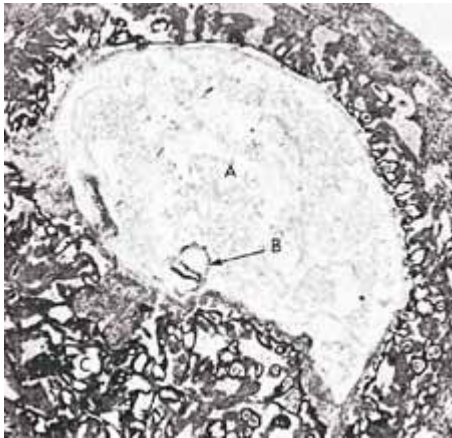


Figure 3: In this photomicrograph, we can see the suspension of an embryo (marked B) during the alaqa stage (about 15 days old) in the womb of the mother. The actual size of the embryo is about 0.6 mm. (The Developing Human, Moore, 3rd ed., p. 66, from Histology, Leeson and Leeson.)

The third meaning of the word *alaqah* is “blood clot.” We find that the external appearance of the embryo and its sacs during the *alaqah* stage is similar to that of a blood clot. This is due to the presence of relatively large amounts of blood present in the embryo during this stage⁴ (see figure 4). Also during this stage, the blood in the embryo does not circulate until the end of the third week.⁵ Thus, the embryo at this stage is like a clot of blood.

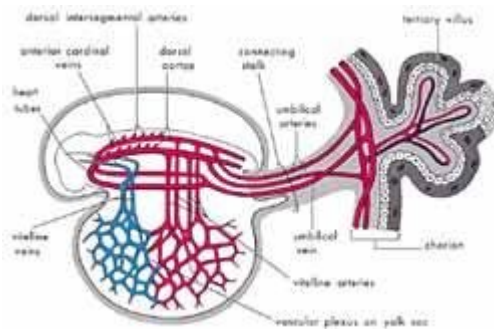


Figure 4: Diagram of the primitive

cardiovascular system in an embryo during the *alaqah* stage. The external appearance of the embryo and its sacs is similar to that of a blood clot, due to the presence of relatively large amounts of blood present in the embryo. (The Developing Human, Moore, 5th ed., p. 65.) (Click on the image to enlarge it.)

So the three meanings of the word *alaqah* correspond accurately to the descriptions of the embryo at the *alaqah* stage.

The next stage mentioned in the verse is the mudghah stage. The Arabic word mudghah means “chewed substance.” If one were to take a piece of gum and chew it in his or her mouth and then compare it with an embryo at the mudghah stage, we would conclude that the embryo at the mudghah stage acquires the appearance of a chewed substance. This is because of the somites at the back of the embryo that “somewhat resemble teethmarks in a chewed substance.”⁶ (see figures 5 and 6).



Figure 5: Photograph of an embryo at the mudghah stage (28 days old). The embryo at this stage acquires the appearance of a chewed substance, because the somites at the back of the embryo somewhat resemble teeth marks in a chewed substance. The actual size of the embryo is 4 mm. (The Developing

Human, Moore and Persaud, 5th ed., p. 82, from Professor Hideo Nishimura, Kyoto University, Kyoto, Japan.)

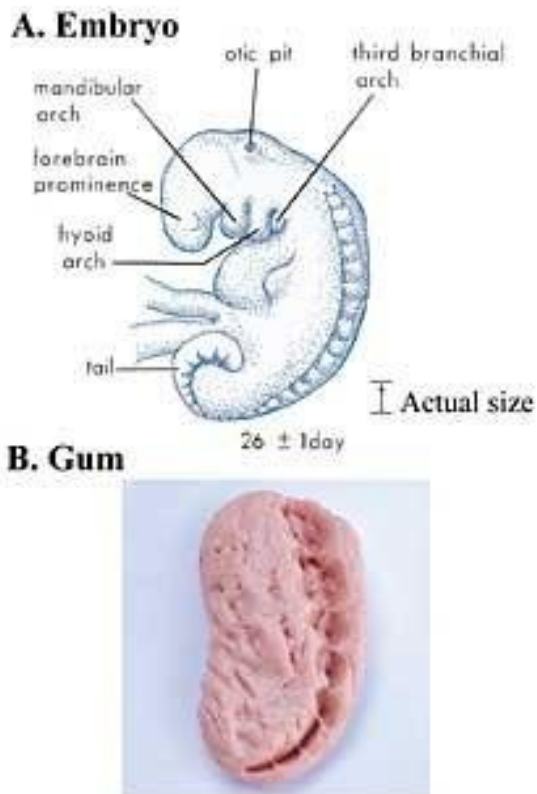


Figure 6: When comparing the appearance of an embryo at the mudghah stage with a piece of gum that has been chewed, we find similarity between the two.

A) Drawing of an embryo at the mudghah stage. We can see here the somites at the back of the embryo that look like teeth marks. (The Developing Human, Moore and Persaud, 5th ed., p. 79.)

B) Photograph of a piece of gum that has been chewed.

How could Prophet Muhammad have possibly known all this 1400 years ago, when scientists have only recently discovered this using advanced equipment and powerful microscopes which did not exist at that time? Hamm and Leeuwenhoek were the first scientists to observe human sperm cells (spermatozoa) using an improved microscope in 1677 (more than 1000 years after Prophet Muhammad). They mistakenly thought that the sperm cell contained a miniature preformed human being that grew when it was deposited in the female genital tract.⁷

Professor Emeritus Keith L. Moore⁸ is one of the world's most prominent scientists in the fields of anatomy and embryology and is the author of the book entitled *The Developing Human*, which has been translated into eight languages. This book is a scientific reference work and was chosen by a special committee in the United States as the best book authored by one person. Dr. Keith Moore is Professor Emeritus of Anatomy and Cell Biology at the University of Toronto, Toronto, Canada. There, he was Associate Dean of Basic Sciences at the Faculty of Medicine and for 8 years was the Chairman of the Department of Anatomy. In 1984, he received the most

distinguished award presented in the field of anatomy in Canada, the J.C.B. Grant Award from the Canadian Association of Anatomists. He has directed many international associations, such as the Canadian and American Association of Anatomists and the Council of the Union of Biological Sciences.

In 1981, during the Seventh Medical Conference in Dammam, Saudi Arabia, Professor Moore said: “It has been a great pleasure for me to help clarify statements in the Quran about human development. It is clear to me that these statements must have come to Prophet Muhammad from God, because almost all of this knowledge was not discovered until many centuries later. This proves to me that Prophet Muhammad must have been a messenger of God.”

Consequently, Professor Moore was asked the following question:

“Does this mean that you believe that the Quran is the word of God?”

He replied: “I find no difficulty in accepting this.”¹⁰

During one conference, Professor Moore stated: “....Because the staging of human embryos is complex, owing to the continuous process of change during development, it is proposed that a new system of classification could be developed using the terms mentioned in the Quran and Sunnah (what Prophet Muhammad said, did, or approved of). The proposed system is simple, comprehensive, and conforms with present embryological knowledge. The intensive studies of the Quran and hadeeth (reliably transmitted reports by the Prophet Muhammad’s companions of what he said, did, or approved of) in the last four years have revealed a system for classifying human embryos that is amazing since it was recorded in the seventh century A.D. Although Aristotle, the founder of the science of embryology, realized that chick embryos developed in stages from his studies of hen’s eggs in the fourth century B.C., he did not give any details about these stages. As far as it is known from the history of embryology, little was known about the staging and classification of human embryos until the twentieth century. For this reason, the descriptions of the human embryo in the Quran cannot be based on scientific knowledge in the seventh century. The only reasonable conclusion is: these descriptions were revealed to Prophet

Muhammad from God. He could not have known such details because he was an illiterate man with absolutely no scientific training.”

The Quran on Deep Seas and Internal Waves:

God has said in the Quran:

Or (the unbelievers' state) is like the darkness in a deep sea. It is covered by waves, above which are waves, above which are clouds. Darkenesses, one above another. If a man stretches out his hand, he cannot see it.... (Quran, 24:40)

This verse mentions the darkness found in deep seas and oceans, where if a man stretches out his hand, he cannot see it. The darkness in deep seas and oceans is found around a depth of 200 meters and below. At this depth, there is almost no light (see figure 15). Below a depth of 1000 meters there is no light at all.¹ Human beings are not

able to dive more than forty meters without the aid of submarines or special equipment. Human beings cannot survive unaided in the deep dark part of the oceans, such as at a depth of 200 meters.

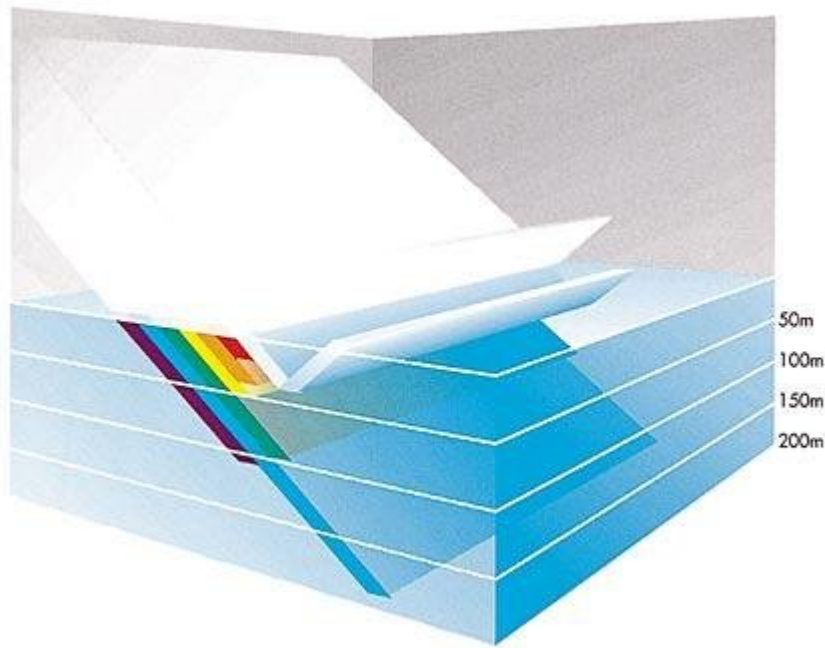


Figure 15: Between 3

and 30 percent of the sunlight is reflected at the sea surface. Then almost all of the seven colors of the light spectrum are absorbed one after another in the first 200 meters, except the blue light. (Oceans, Elder and Pernetta, p. 27.)

Scientists have recently discovered this darkness by means of special equipment and submarines that have enabled them to dive into the depths of the oceans.

We can also understand from the following sentences in the previous verse, “...in a deep sea. It is covered by waves, above which are waves, above which are clouds....”, that the deep waters of seas and oceans are covered by waves, and above these waves are other waves. It is clear that the second set of waves are the surface waves that we see, because the verse mentions that above the second waves there are clouds. But what about the first waves? Scientists have recently discovered that there are internal waves which “occur on density interfaces between layers of different densities.”² (see figure 16).

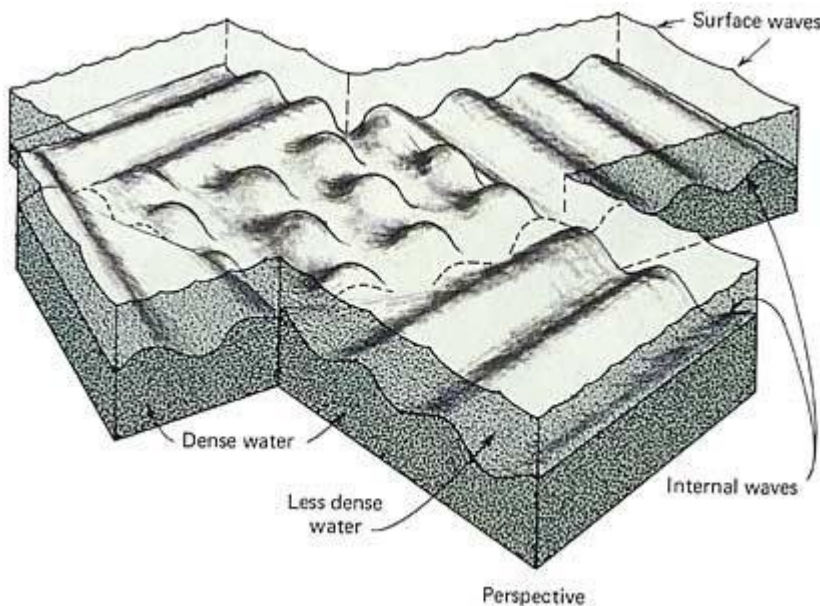


Figure 16: Internal

waves at interface between two layers of water of different densities.

One is dense (the lower one), the other one is less dense (the upper one). (Oceanography, Gross, p. 204.)

The internal waves cover the deep waters of seas and oceans because the deep waters have a higher density than the waters above them. Internal waves act like surface waves. They can also break, just like surface waves. Internal waves cannot be seen by the human eye, but they can be detected by studying temperature or salinity changes at a given location.

Footnotes:

(1) Oceans, Elder and Pernetta, p. 27.

(2) Oceanography, Gross, p. 205.

(3) Oceanography, Gross, p. 205.

For more information, you may visit the following website:

<http://www.islam-guide.com/>

To all the Believers, I wish you Blessings and Peace. And to all the Non-Believers, I will also leave you on juste terms. We simply do not share the same view. And the Holy Qur'an states that it is best to say to you this:

109:1 Say, "O You who reject Faith

109:2 I do not worship what you worship.

109:3 Nor are you worshippers of what I worship.

109:4 Nor will I be a worshipper of what you worship.

109:5 Nor will you be worshippers of what I worship.

109:6 For you is your religion, and for me is my religion."

Thank you everyone, and have a nice day!

